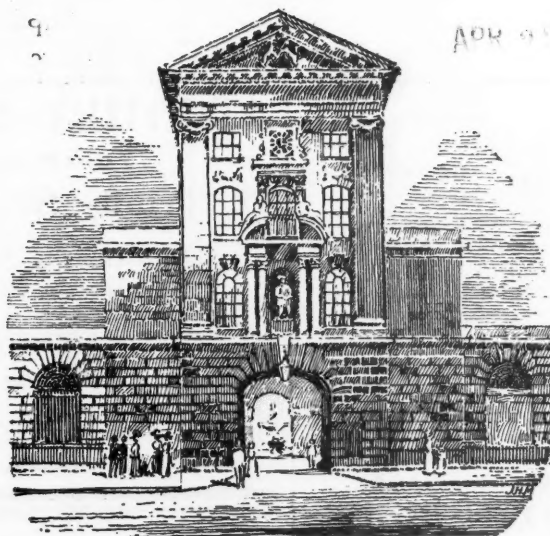


ST BARTHOLOMEW'S HOSPITAL JOURNAL



VOL. XXXIX.—No. 7.

APRIL, 1932.

[PRICE NINEPENCE.]

CONTENTS.

	PAGE		PAGE
Calendar	125	Students' Union :	
Editorial Notes	125	Rugby Club	141
Obituary :		Hockey Club	141
Sir Frederick Andrewes	127	Cricket Club	142
Some Notes on Cerebral Aneurysms. By		Inter-Hospitals Cross-Country Cham-	
C. M. Hinds Howell, D.M., F.R.C.P.	130	pionship	142
The Municipal Hospital Service. By		Boxing Club	142
Geoffrey Evans, M.D., F.R.C.P.	133	Correspondence	143
Diaphragmatic Hernia, with Report of a		Reviews	143
Case. By G. C. Knight, M.B., B.S.	135	Examinations, etc.	144
On "Chronics." By H. B.	139	Changes of Address	144
Abernethian Society	140	Appointments	144
		Births	144
		Golden Wedding	144
		Deaths	144
		Acknowledgments	144
		Index to Advertisements	ii

INDEX TO ADVERTISEMENTS.

	PAGE
Allen & Hanburys Ltd. Ophthalmoscope	vi
Books—	
Adlard & Son, Limited The Fundus Oculi	iii
Faber & Faber Ltd. ... Practical Preparations	ii
Lewis, H. K., & Co., Ltd. Books for Students	iv
Boots Pure Drug Co., Ltd. Stabilaran	v
Bradbury, Keith, Ltd. ... Tailors	v
Clinical Research Department of St. Bartholomew's Hospital	xiv
Down, Bros. ... Specialities	iii
Evans & Witt ... Booksellers, Stationers, etc.	ii
Ferris, J. & E., Ltd. ... Artificial Limbs	ii
Gas Light & Coke Company	xii
Genito-Urinary Manufacturing Co., Ltd.	iv
Hamblin, Theodore, Ltd.	xiii

	PAGE
Maw, Son & Sons, Ltd. Diagnostic Bag	vii
Medical Sickness, Annuity and Life Assurance Society, Ltd.	xiv
Millikin & Lawley ... Microscopes, Instruments, etc.	vi
Northwoods, Winterbourne, Bristol	ii
Paripan, Ltd.	vii
Parke, Davis & Co. ... Ventriculin with Iron	viii
Ronuk	ix
"Round the Pountain"	ix
Shepherd, A. ... Tailor and Hosier	ii
St. Bartholomew's Hospital	
Medical College ... Preliminary Scientific Department	x
Ditto ... Scholarships; Bacteriology	
Ditto ... Fellowship Classes; Entrance Scholarships	xi
St. Bartholomew's Trained Nurses' Institution	ii
Virol	viii

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"Æquam memento rebus in arduis
Servare mentem."
—Horace, Book ii, Ode iii.

JOURNAL.

VOL. XXXIX.—No. 7.]

APRIL 1ST, 1932.

PRICE NINEPENCE.

CALENDAR.

Fri.,	April 1.	—Dr. C. M. Hinds Howell and Mr. Harold Wilson on duty.
Sat.,	" 2.	—Rugby match v. Pontypool. Away.
Tues.,	" 5.	—Dr. Gow and Mr. Girling Ball on duty.
Fri.,	" 8.	—Prof. Fraser and Prof. Gask on duty.
Sat.,	" 9.	—Rugby match v. Plymouth Albion. Away.
Mon.,	" 11.	—Rugby match v. Redruth. Away.
Tues.,	" 12.	—Sir Percival Hartley and Mr. L. Bathe Rawling on duty.
		Rugby match v. St. Ives. Away.
Thurs.,	" 14.	— Abernethian Society : Summer Sessional Address by Prof. Hugh Cabot, at 8.30 p.m.
Fri.,	" 15.	—Sir Thomas Horder and Sir Charles Gordon-Watson on duty.
Tues.,	" 19.	—Dr. C. M. Hinds Howell and Mr. Harold Wilson on duty.
		Last date for receiving matter for the May issue of the Journal.
Fri.,	" 22.	—Dr. Gow and Mr. Girling Ball on duty.
Mon.,	" 25.	—Special subjects : Clinical Lecture by Mr. Bedford Russell.
Tues.,	" 26.	—Prof. Fraser and Prof. Gask on duty.
Wed.,	" 27.	—Surgery : Clinical Lecture by Mr. Girling Ball.
Fri.,	" 29.	—Sir Percival Hartley and Mr. L. Bathe Rawling on duty.
Sat.,	" 30.	—Cricket match v. Southgate. Home.

EDITORIAL.

THE much-vexed Out-patient question in the voluntary hospitals of London is again coming into prominence. Several months ago a committee was appointed under the auspices of King Edward's Hospital Fund to inquire into the matter, and we understand that a similar effort is being made on the part of the Hospital Saving Association, with their "Out-patient Committee, 1932."

Our contributor, who writes "On Chronics" in this issue, deals with the question of the suitability of the patients who present themselves for treatment. Every-

one who works in the Surgery or in the Out-patient Departments will heartily endorse his sentiments. It seems that if these haphazard conditions are allowed to continue, it will become more and more difficult to give prompt attention to those out-patients who really need it, and whose time is valuable to them. Overcrowding must lead to delay. There is no doubt that we treat many Out-patients who, on medical grounds, do not require our services. These patients cannot be regarded as a serious financial loss, assuming that they pay their sixpence at the "gate," since medicines of the "penny-a-pint" variety are just as effective, or ineffective, as the more expensive drugs. Their presence is a serious drain on the House Physician's energy, and their large numbers swamp those whose claims to attention are genuine and urgent.

It is becoming increasingly clear that we should aim at restricting the use of the Out-patient Departments as much as possible to emergencies and to those requiring consultants' opinions or special treatment. General practitioners should receive their patients back again when the opinion has been given or the treatment completed. We shall look forward with interest to the reports of these committees.

* * *

We learn that Prof. Hugh Cabot has confirmed his promise to speak to the Abernethian Society on Thursday, April 14th, at 8.30 p.m. The title of his address will be "Hunting with a Movie Camera in Northern British Columbia." Some interesting films of animals will be shown, chiefly moose, seen while hunting with a camera rather than with a rifle. Prof. Cabot will lecture on "The Present Position of Prostatic Surgery" to the Medical College on Monday, April 18th, at 12.45 p.m., and will also give a lecture on "Nephrostomy in Theory and Practice" at the Section of Urology, Royal Society of Medicine, on Thursday, April 21st.

ST. BARTHOLOMEW'S HOSPITAL WOMEN'S GUILD.

We are asked to draw the attention of readers to the Fair which is to be held at the same time as the Jumble Sale on May 23rd, 24th and 25th, in President Ward, opposite Sandhurst Ward, where the sale is to be held. There will be a Tombola, a Canteen where refreshments can be obtained, a Produce Stall, a Fancy Stall, Games at which to try your skill, such as Darts, Bull Board, Corinthian Bagatelle, and many others. Valuable prizes will be given. Admission will be free, but there will be ample opportunities to spend money when inside. The Women's Guild are hoping for a large contingent of Bart.'s men and nurses with their friends and relations.

* * *

POST-GRADUATE COURSE.

A Post-Graduate Course will be held on Friday, June 24th, and Saturday, June 25th, 1932. The course will include the following:

- (1) "Recent Advances in Endocrinology," Dr. Langdon Brown.
- (2) "Treatment of Septicæmia and Allied Conditions," Sir Thomas Horder.
- (3) "Treatment of Epilepsy," Dr. Hinds Howell.
- (4) "Treatment and Control of Diabetes," Dr. G. Graham.
- (5) "Demonstration of Skin Conditions which could be treated by Light Therapy," Dr. Roxburgh.
- (6) "Medical and Surgical Treatment of Gastric Ulcer," Prof. Fraser and Mr. Hume.
- (7) "Treatment of Antrum and Sinus Infections," Mr. Capps.
- (8) "Fractures of the Hand and Wrist," Mr. Higgs.
- (9) "The Value of Certain New Sera and Vaccines," Dr. Garrod.
- (10) "Bronchoscopy," Mr. Nelson.

A detailed programme will be sent out with the May number of the JOURNAL.

* * *

TENTH DECENNIAL CLUB.

The Annual Dinner of the Tenth Decennial Club will be held on Friday, May 6th, 1932, at the Mayfair Hotel (Berkeley Street entrance). Mr. Reginald M. Vick will be in the Chair. The usual notices will be sent out shortly.

* * *

We regret to announce the death, on March 16th last, of Sir William Robert Smith, at the age of 82, a distinguished Bart.'s man, and also a barrister of the Middle

Temple. He was Emeritus Professor of Forensic Medicine at King's College, Sheriff of London 1918-19, sometime Mayor of Holborn, and only a month before his death was nominated by the Court of Common Council to serve as its representative on the House Committee at St. Bartholomew's Hospital. Sir William Smith's work on school hygiene and in the provision of special schools for feeble-minded children is well known.

* * *

The following gentlemen have been nominated to House Appointments from May 1st, 1932:

Junior House Physicians—

Sir Percival Hartley	Fraser, A. C.
Prof. F. R. Fraser	Harris, C. H. S.
Sir Thomas Horder, Bart.	Marshall, R. M.
Dr. Hinds Howell	Lane, C. R. T.
Dr. A. E. Gow	Buckland, H. S.

Junior House Surgeons—

Mr. L. Bathe Rawling	Bell, W. D.
Prof. G. E. Gask	Briggs, G. D. S.
Sir C. Gordon Watson	Blair, A. T.
Mr. Harold Wilson	Beal, J. H. B.
Mr. Girling Ball	McGavin, D.

Intern Midwifery Assistant (Resident) Vartan, C. K.

Intern Midwifery Assistant (Non-Resident) Baxter, W. S.

Extern Midwifery Assistant { Taylor, J. T. C.*
Beilby, F. J.†

H.S. to Throat and Ear Department Knight, G. C.

H.S. to Ophthalmic Department Dean, D. M.

H.S. to Skin and Venereal Departments (Non-Resident) { Cusack, M. L.*
Great Rex, J. B.†

H.S. to Orthopaedic Department Coltart, W. D.

H.P. to Children's Department Wynne Thomas, G.

Senior Resident Anaesthetist Rait-Smith, B.†

Junior Resident Anaesthetists { Scott, J. Duff.
Sykes, R. A.

Non-Resident Anaesthetist Green, H. F.

Casualty House Physicians { Green, L. E.*
Langford, A. W.*
Tracey, J. B.*
Burrows, T. E.†
Keele, K. D.†Casualty House Surgeons { Jenkyn Thomas, J. E.*
Langston, H. H.†

* 3 months, May. † 3 months, August. ‡ 12 months.
Others for 6 months.

EXAMINATION HOWLERS.

II.

LEAVING NOTHING TO CHANCE.

Q.: "Anthrax (Woolsorters' disease) . . . and its preventive treatment."

A.: "All infected animals must be burnt or buried alive; and the woolsorter must be boiled."

OBITUARY.

SIR FREDERICK ANDREWES.

FIFTY years have passed since Sir Frederick Andrewes entered as a student at our Hospital, and throughout those years his has been a prominent figure in the life of the place; first as a student of outstanding promise, popular with all, and afterwards as a teacher of medicine, and later of pathology to generations of Bart.'s students, and a valued friend of many colleagues. His duties as Pathologist and Sanitary Officer brought him into close contact with all the various departments of the Hospital, and his genial presence was always welcome whether in the lecture room, laboratory or wards, and not least at the round table in the luncheon room. Even in the years that followed his retirement from the Professorship of Pathology his was still a familiar figure in the Hospital, for he carried on his research work in the department of which he had so long been the head, until compelled by ill-health to lay it aside.

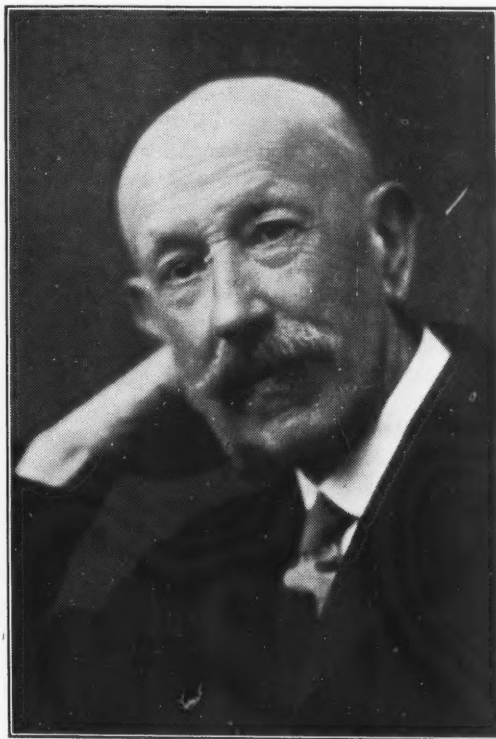
Frederick William Andrewes, who was born on March 31st, 1859, was the eldest of four sons of C. J. Andrewes, J.P., and sometime Mayor of Reading, and of his second wife, born Charlotte Parsons. He was educated at Oakley House School, Reading, where he had as school-fellows several men who attained to distinction, including Owen Seaman, E. B. Poulton, W. F. R. Weldon and Seth Smith. There he received a classical training, the effects of which were reflected in his wide outlook and his admirable literary style.

In 1879 he obtained a scholarship, at that time called a Junior Studentship at Christ Church, Oxford. Even in those early days his unusual ability was patent to his teachers and to his fellow-undergraduates alike. Amongst his teachers were Rolleston and Hatchett Jackson. In 1881 he was placed in the first class in the Honour School of Natural Science, taking biology as his subject, and had the distinction of being alone in the first class. In 1883 he obtained the Burdett Coutts University Scholarship in Geology, and was elected to the Sheppard Fellowship at Pembroke College, the holder of which has either to be called to the bar, or to proceed to the D.M. degree.

Meanwhile he had gained the Open Entrance Scholarship at this Hospital. He was a President of the Abernethian Society and, having qualified as M.R.C.S. in 1887 and taken the B.M. of Oxford, he became House Physician to Dr. James Andrew. The latter, who had taken a classical degree at Oxford and had been a Fellow of Wadham College, was a very sound physician

of the old school and a good teacher. He and his House Physician must have had many interests in common. Andrewes next followed the example of several men from our Hospital and spent some time in Vienna, where good opportunities were afforded of obtaining practical knowledge of the use of the ophthalmoscope, otoscope, and especially of the laryngoscope, then only beginning to come into use in this country.

On his return he embarked upon the career of a consulting physician. He was Casualty Physician at



St. Bartholomew's, became Assistant Physician and Pathologist to the Royal Free Hospital, and his feet were firmly planted upon the ladder, then much crowded by other aspirants, to places on the Staff of this Hospital. None of his contemporaries doubted that he would attain his aim, and his friends predicted for him a distinguished medical career. Indeed he remained through life an excellent clinical observer, never lost his interest in things clinical, and exercised a most beneficial influence in maintaining the bonds between the laboratory and the ward. It is characteristic of him that he retained this touch with clinical medicine to the last, and that he converted the occasion of an attack of aphasia into a valuable contribution to clinical literature.

He became a Member of the Royal College of Physicians in 1889, and in 1895 was elected a Fellow of that College.

During these years he had become interested in the comparatively new, but rapidly advancing science of bacteriology, and had a practical training in that subject under Dr. Klein in his laboratory at the College of State Medicine.

When, in 1897, A. A. Kanthack, who had started in this Hospital the first laboratory of clinical pathology established in any London medical school, became Professor of Pathology at Cambridge, Andrewes seemed clearly indicated as the most suitable successor here, and decided to abandon clinical medicine and to devote himself to pathology. The decision can have been no easy one, for there is no reason to think that the life of a physician was otherwise than congenial to him, and in those days the outlook for one who devoted himself to pathological science was less promising than nowadays as a means of earning a competence. Moreover, Kanthack, a man with harmonic qualities, whose promise of a brilliant career was cut short by his early death, was not one whom it was easy to succeed.

When, in April, 1897, Sir Frederick Andrewes succeeded to the post of Lecturer on Pathology and Pathologist to the Hospital, Dr. J. H. Drysdale was already Demonstrator, and his services and personality were of the greatest value in bringing the services of the Pathological Laboratory into general use by the wards. The story of the evolution of pathology at St. Bartholomew's has never been described completely, but valuable contributions have been made by Sir F. S. Eve in an account of the Museum in vol. xvi of the *Reports*, and by Sir Frederick Andrewes himself in vol. xxxii (1898), and also in a recent address to the Abernethian Society published in this Journal, vol. xxxv, Nos. 7 and 8, April and May, 1928. It seems that for many years pathology meant morbid anatomy pure and simple. Although the Museum was actually founded so long ago as 1726, the great work and influence of Paget was no doubt largely responsible for the fact that as regards the general study and teaching of morbid anatomy, this Hospital was in the van of progress during the last thirty years of the nineteenth century. From the standpoint of its naked-eye aspects Sir Frederick did not believe that morbid anatomy was more attentively or better studied in 1898 than twenty or thirty years before—perhaps even less so. He goes on to say: "The pathologist of other days could, for example, recognize his tubercle by eye and touch alone; he cultivated those powers to the utmost, and was not often wrong, but to-day (1898) he can supplement them by

histological study and the demonstration of the tubercle bacillus, or even by inoculation experiments. His conclusions may attain practical certainty; instead of one crude mode of diagnosis he has several. It has been feared by some that naked-eye pathology may thus come to be undervalued; but I do not think this is the case at St. Bartholomew's. It is true that in the teaching of it and in the permanent specimens which illustrate it in our Museum very important progress has been made."

He then proceeds to trace the development of microscopical pathology in the Hospital from the time of Paget, through that of Marrant Baker, Eve, Norman Moore and Bowlby. Gradually the methods and results improved. Bacteriology was growing up; Dr. Klein, the Hospital Lecturer on Physiology, took it up, and his book, *Micro-organisms and Disease*, was the first book on bacteriology to be published in any language. In 1893, Kanthack, who had worked under Virchow and Koch, was appointed Lecturer on Pathology—a whole-time appointment. Kanthack inaugurated clinical pathology as a voluntary service, and this was recognized in 1895 by the Governors, who appointed him to be the first Pathologist to the Hospital. In April, 1897, when Andrewes succeeded him he found the Department well organized and in good working order. A Demonstrator of Pathology and two Assistant Demonstrators were appointed, and the paper concludes with a review of the work of the Department. The training of students in pathological methods was regarded by him as of no less importance than the work for the patients in the wards, and the principle that all the pathological investigations that could readily be done on the spot should be done in the wards by the clerks or dressers was also stressed.

These principles, laid down by Sir Frederick in 1898, were kept in mind by him throughout the following thirty years that he presided over the Pathological Department, and exercised the chief influence on the direction of its growth. To-day, while morbid anatomy and histology are cultivated as fully as before, bacteriology, hæmatology and chemical pathology are receiving more attention than thirty years ago, and, as becomes a building erected by the Governors "for the elucidation of problems in the nature and treatment of disease" (as the inscription on the Foundation Stone of the Pathological Block records), far more research work is going on than in 1898. That the Department has reached its high state of usefulness both to the Hospital and School, and also to medical science in general, is due chiefly to the wise direction of Sir Frederick Andrewes, and to those who assisted him in the various stages of its development.

In 1912 the Lectureship in Pathology was raised by

the University of London to the dignity of a Professorship.

Sir Frederick was one of the ablest lecturers in the country, and whatever the subject, was uniformly successful. He was a born narrator, who marshalled his facts with a natural charm and simplicity, and with the ease and precision of a master, and he possessed the rare gift of a delicate sense of humour. However dull the subject and gloomy the audience, those who knew him well would be on the look-out for that almost imperceptible twinkle in his eye that presaged a sally, and they were seldom disappointed. This humour found vent in his "Romance of the Streptococci," an anonymous and delightful parody of his own Dobell Lectures at the Royal College of Physicians. The sense of humour was with him to the end, for it is reported that during his visit to the States last year, a Middle-West American child, on hearing that he was a knight, expressed disappointment that he was not equipped with sword and armour. He remarked that he had left them at home on the piano—a reply that might have done credit to his old schoolfellow, who became not only a knight, but editor of *Punch* as well.

Sir Frederick Andrewes was continuously engaged in research work throughout the whole of his career subsequent to qualification. He made some valuable contributions to knowledge.

His study of the histological changes occurring in lymphadenoma was presented to the Pathological Society of London in 1902, and has served in this country ever since as a sound and accurate description of the chief features distinguishing that condition microscopically. His study of arterial degeneration, published by the Local Government Board as a special report in 1912, was likewise a contribution of great value. His work as Sanitary Officer to the Hospital for over thirty years gave him a wide experience of epidemics, and his reports of some of these, in the special book on which they are recorded for the information of the Governors, are a mine of information. He was one of the earliest to grasp the value of bacteriology for the control of infectious disease, and at one time he devoted special attention to disinfection. His little book on *Disinfection and Sterilization* is a model of clarity, and full of practical information; he was one of the first to draw attention (with Dr. K. J. P. Orton) to the high disinfectant value of hypochlorous acid. He also carried out a number of experiments on the bacteriology of the air of sewers, and showed that under certain conditions droplets of sewage can be detected in the air of sewers—a point that had been minimized, or even

denied before his work and that of Horrocks on the same subject. He was among the earliest to employ systematic swabbing for the purpose of detecting diphtheria carriers and for the control of epidemics. He also, in collaboration with Sir Thomas Horder, made a special study of streptococci, and classified them into three groups at a time when much confusion prevailed with regard to them. He returned to the streptococci later, and was studying the streptococcus group by serological methods at the time of his final illness.

Sir Frederick did valuable work also in his serological study of organisms of the dysentery and salmonella groups, and in other branches of bacteriology. For his services to research he was elected a Fellow of the Royal Society in 1915, and later became a member of the Council of the Society.

He contributed numerous articles to the medical press, and wrote the article on the "General Pathology of New Growths" and the "General Pathology of Peritonitis" in the second edition of Clifford Allbutt's *System of Medicine*. He also collaborated with Sir Anthony Bowlby in his well-known book on Surgical Pathology.

At the Royal College of Physicians, besides the Dobell Lectures in 1906, he gave the Croonian Lectures in 1910, and was Harveian Orator in 1920. He served on numerous committees appointed by Government departments and other public bodies, and was a member of the Medical Research Council. For his services to the War Office and the Medical Research Council during the war he was awarded the O.B.E., and received the honour of knighthood. In 1924 the University of Durham conferred on him the honorary degree of D.C.L.

Andrewes's interests were far wider than the subjects of his life's work. They extended to all branches of science and to all living things. For many years he was an active collector of butterflies and moths. When he left Welbeck Street and went to live in Highgate, he started a rock garden which became one of his chief delights. When he moved house the rockery moved with him to his new garden. From year to year he acquired new treasures, some brought back by himself or friends from mountain holidays, and others by exchange with other collectors. He enjoyed a holiday amongst the mountains, and as late as in 1927 he climbed the great gable in the Lake District. North Wales was one of his favourite holiday resorts.

In his latter years he was much interested in architecture and in visiting cathedrals and churches, and after a visit to Holland, some ten years ago, as an exchange lecturer, he acquired a keen interest in Dutch art. Music, and especially sacred music, was a source of much enjoyment to him from his undergraduate days onward.

A man with so many interests could never find life tedious, even when cut off from his wonted activities by failing health. The illness which eventually proved fatal was borne with that fortitude and good humour which endeared him to all who knew him best, and gained for him the esteem and goodwill of all who crossed his path in life.

His last contribution to medical literature, which appeared in this JOURNAL in October last, was a description of his own experiences during a period of aphasia, written in his own characteristic style, and entitled to rank as a classic of clinical medicine.

He married Phyllis Mary, daughter of Mr. John Hamer, J.P., and leaves a son and daughter. His son, Dr. C. H. Andrewes, is well known to Bart.'s men, and is a member of the Scientific Staff of the National Institute for Medical Research.

SOME NOTES ON CEREBRAL ANEURYSMS.

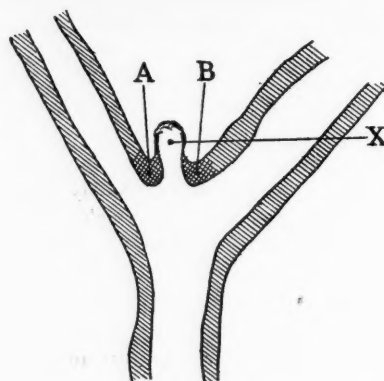
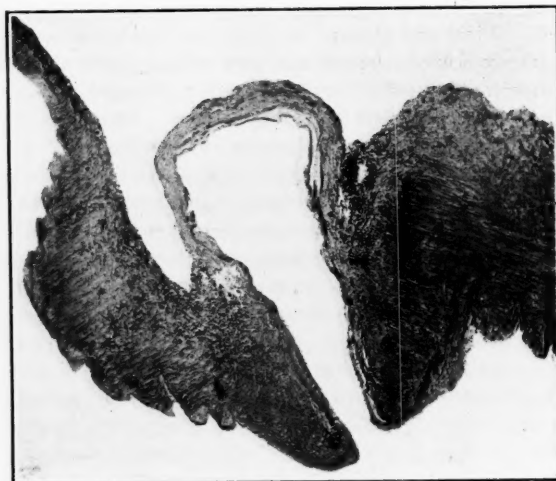
ALTHOUGH aneurysms of the cerebral arteries were first described by Biumi (1) in 1765, it is only comparatively recently that we are becoming more familiar with the various manifestations to which they may give rise. So much is the popularity of this diagnosis growing that there is now some danger of its being made in cases in which, at the best, it must be highly speculative. On the other hand, in some instances it can be made with certainty.

Like any other aneurysm, one which affects a cerebral artery is due to weakening of the arterial wall. There are a number of possible causes of such weakening, and these may be divided into two main groups: (1) congenital; (2) acquired.

In connection with the second group one recognizes the following immediate causes: (a) Trauma; (b) inflammation, either from within the artery or from without; (c) granulomatous infiltration; (d) degenerative changes in the arterial wall; (e) lack of mechanical support, probably combined with one of the preceding causes.

So far as cerebral aneurysms are concerned, congenital weakness of the arterial wall is one of the most common causes. Aneurysms due to this factor are found at the bifurcation of a vessel, or where a lateral branch leaves the artery. Many such aneurysms or potential aneurysms are microscopic in size. Dr. Greenfield,

at the National Hospital, Queen Square, has shown that the muscular coat may be very much thinned at the point of bifurcation, and in some instances interrupted altogether, the gap being filled by connective tissue. He has very kindly allowed me to reproduce the accompanying micro-photograph of such an aneurysm, which illustrates the point I am making very well.



EXPLANATORY DIAGRAM OF MICRO-PHOTOGRAPH. X, ANEURYSM FORMING AT BIFURCATION OF ARTERY. NOTE INTERRUPTION OF MUSCULAR COAT AT A AND B.

With regard to acquired causes, trauma is a rare factor in the production of cerebral aneurysm. An extremely instructive case of traumatic aneurysm of the internal carotid artery in its intracranial portion has been recorded by J. L. Birley (2). It is interesting to us in this Hospital to note that Sir William Church (3) first drew attention to embolic aneurysm of cerebral arteries in the course of ulcerative endocarditis so long

ago as 1870, when he published an account of six cases in the *Hospital Reports*.

Syphilis, so common a cause of aneurysm elsewhere, particularly in the aorta, is not generally regarded as a common cause of cerebral aneurysm, but when operative it usually affects the basilar artery. Arterial degeneration, with a high blood-pressure, is the cause of a certain number of cases.

Cerebral aneurysms are situated almost entirely on the vessels at the base of the brain. They are very rare on any intra-cerebral branch. I have seen a minute aneurysm which projected into the descending horn of the lateral ventricle through its outer wall. It had ruptured some days previously, and had produced the physical signs of ventricular hæmorrhage. The frequency with which the various branches of the circle of Willis are effected varies in different series of recorded cases, but probably the middle cerebral, anterior cerebral and basilar arteries are more liable to become the seat of aneurysm formation than are the other basal arteries.

Many cerebral aneurysms are quite minute—a fact which explains the difficulty often experienced in finding a ruptured aneurysm in some cases of subarachnoid hæmorrhage. Commonly the size of a pea or a hazelnut, much larger aneurysms are sometimes met with. In 44 cases recorded by Fearnside (4) the largest was 30 mm. in diameter—*i. e.* rather more than 1 in. Aneurysms occasionally attain a large size. The largest that I have been able to trace is mentioned by Beadles (7), and is said to have measured 2 in. by $2\frac{3}{8}$ in.

The sex incidence of intracranial aneurysms varies in different series reported, and probably is very similar in the two sexes. The age at which symptoms occur is also very variable, being met with in children, though this is rare, and also in quite old people.

In most cases it is impossible to say for how long an aneurysm has existed. Many of them never give rise to symptoms at all, or at any rate none that can be definitely assigned to an aneurysm. In others there may be signs and symptoms pointing to a cerebral tumour for some years before death, whilst in a large number the presence of an aneurysm is only suspected when a subarachnoid hæmorrhage occurs.

A case is reported by Souques (5) of an unfortunate individual who had presented symptoms of cerebral tumour for fifty-five years before committing suicide at the age of 65, but, as Max Schmidt remarks in his article on intra-cranial aneurysms, "This is rather an exceptional case."

In another instance recorded by Schmidt himself symptoms had existed for thirty-two years.

SYMPTOMATOLOGY.

The consideration of this question falls into two periods: first the period preceding leakage or rupture of the aneurysm; and secondly the symptoms presented as the result of leakage or rupture.

During what may be described as the quiescent period of its existence an aneurysm may give rise to no symptoms whatever. Some, but relatively few, have given rise to symptoms of increased intracranial pressure, thus simulating cerebral tumours. In other cases the symptoms complained of are such as might be produced in other ways, and the possibility of a cerebral aneurysm being present may not even be considered.

In a case of malignant endocarditis which suddenly developed complete blindness in one eye, Mr. Foster Moore (6) made the diagnosis of rupture of the optic nerve due to an embolic aneurysm, the truth of which was confirmed at autopsy some few weeks later. Without in any way detracting from this brilliant diagnosis, one may fairly say that the diagnosis of aneurysm is perhaps easiest in those cases, such as the one referred to, where septic emboli are to be expected. Variability in the intensity of symptoms might suggest the possibility of an aneurysm. I have had under my care in Hope Ward quite recently a man, *æt.* 50, who had complained of pain behind his right eye for some weeks. A month before admission he had developed diplopia, and soon after there was obvious paresis of the third cranial nerve. He had no other physical signs. The Wassermann reaction was negative in blood and cerebro-spinal fluid; X-ray examination was negative. His systolic blood-pressure was 230 mm. Hg. During his stay in hospital with no other treatment than rest, these symptoms passed off. It seems possible, though the diagnosis must be purely speculative, that this man may have an aneurysm, perhaps of the internal carotid in its path through the cavernous sinus. Should such an aneurysm leak, the result is very striking, for there develops the remarkable picture of pulsating exophthalmos.

I think that some cases of paroxysmal unilateral headache, which are more than likely to be regarded as migraine, may in fact be due to aneurysm. A particular variety, known as "migraine ophthalmoplegique" by the French, in which some degree of oculomotor palsy accompanies the hemicrania, is in some cases, I feel sure, due to aneurysm. Vertiginous attacks and epileptiform attacks may be sometimes manifestations of aneurysm.

One of the physical signs which you are told to expect in cases of intracranial aneurysm—namely a bruit within the skull—is practically never to be heard with a true aneurysm (7). It is usually present in the case of an arterio-venous aneurysm, and such a bruit was

clearly audible in Birley's case of traumatic aneurysm of the internal carotid in the cavernous sinus.

Where the presence of an aneurysm is suspected, X-ray examination will sometimes confirm the diagnosis. Albl has described the appearance which an aneurysm with a calcified or partially calcified sac will present. This takes the form either of a complete ring, or of two or more crescentic or partial rings; these "Albl rings" are more likely to be found accidentally than otherwise.

The symptoms caused by leakage or rupture of an intracranial aneurysm are those due as a rule to subarachnoid hæmorrhage—for it is into the subarachnoid space that the leak or rupture commonly occurs. More rarely the rupture may be into the cerebral tissues, and sometimes into a ventricle.

Subarachnoid hæmorrhages may, and do, occur in a number of different conditions, such as the leukæmias, in purpura, septicæmia and so on. But when a spontaneous subarachnoid hæmorrhage occurs in an apparently healthy individual, it is almost certainly due to a leaking or ruptured aneurysm.

One of the most constant symptoms associated with such a leak is intense pain in the head. The patient, who may or may not become immediately unconscious, calls out with pain. The exclamation, "Oh my head!" succeeded by loss of consciousness, with or without convulsion, is almost pathognomonic of an aneurysmal rupture. Papillœdema may develop, and so may hæmorrhages into the retina and around the disc.

The onset of the symptoms is not always so dramatic and fulminating. With a leaking aneurysm the symptoms and physical signs may simulate meningitis very closely. Intense headache, which is always present, vomiting, rigidity of the neck, Kernig's sign, and possibly some ocular palsies, make a most suggestive picture of meningitis. It is quite natural that this should be so, as the symptoms and physical signs are due to meningeal irritation.

Lumbar puncture, which should be done as a routine in the examination of all cases of disease of the nervous system, will almost invariably make the diagnosis clear.

If the fluid is obtained shortly after the onset of symptoms it will be found uniformly blood-stained. It is quite easy to differentiate between a subarachnoid hæmorrhage and blood from a traumatic puncture, as in the latter case the blood is not intimately mixed with the fluid, but diminishes in quantity as the flow continues. After a few days the cerebro-spinal fluid becomes straw-coloured, and remains so for a variable period.

In rare cases of subarachnoid hæmorrhage it is stated that the blood may get shut off, and the cerebro-spinal

fluid obtained by puncture will then be clear. I have never to my knowledge seen such a case.

Important urinary changes occur in connection with subarachnoid hæmorrhage, and unless a lumbar puncture is done, may cause errors in diagnosis.

A massive albuminuria is one such finding, and in other cases glycosuria and acetone may occur. A case of the latter type has recently been under my care in Annie Zunz Ward. The patient was admitted in a semicomatose condition, without any very definite history. Sugar and acetone were found in the urine, and she was treated as a case of diabetes with intravenous glucose and insulin. However, vomiting, intense pain in the head and pain with rigidity in the neck suggested the correct diagnosis, which was confirmed by lumbar puncture.

A case under my care some years ago at the Royal Northern Hospital suggested a cerebral tumour. A girl, æt. 19, had for some time past been complaining of headaches. She suddenly collapsed whilst telephoning and was brought to the Hospital. She had a right-sided hemiplegia, and papillœdema in both eyes. Unfortunately I did not do a lumbar puncture, but made a diagnosis of cerebral tumour with a hæmorrhage therein, and had a left-sided decompression operation done. The convolutions were found flattened, but there was no sign of tumour visible. After the operation the girl made a rapid recovery, and in a month's time there was no hemiplegia, the papillœdema had subsided, and the cranial defect showed no sign of any pressure. She was to leave hospital the next day, when she suddenly became unconscious, the operation area became quite tense and bulging, and within an hour or so she died. The autopsy revealed the presence of an aneurysm in the anterior communicating artery which had ruptured. The first symptoms were no doubt due to a similar hæmorrhage.

Recurrent attacks of bleeding are by no means uncommon, and the patient may survive several.

A woman was recently in Annie Zunz Ward dangerously ill with the classical picture of leaking aneurysm, confirmed by lumbar puncture. She was improving and the pain in her head becoming less severe, when one day she was found to have developed a complete palsy of the right third nerve. The next day she had another severe hæmorrhage, but eventually recovered and left the Hospital. Seen two months later she was keeping well and the third nerve palsy was less complete.

The treatment of these cases at present consists in keeping the patient during the recent condition at rest with morphia, and reducing the intra-cranial pressure by lumbar puncture and by intravenous glucose. Enemas of magnesium sulphate may also prove useful.

These measures serve to relieve the headache, and theoretically to minimize the risk of recurrent hæmorrhage by reducing the intra-cranial pressure.

The diet is liquid, and only as much given as may be necessary to relieve thirst. It may be possible, as time goes on, that surgical treatment and ligature of the affected vessel may become practical politics, but at present this method can only be applied when the aneurysm affects the internal carotid and the signs of its doing so are definite, such signs being due to pressure on the cranial nerves passing through the walls of the cavernous sinus.


The prognosis in any case must be very grave. But many patients survive, not only one leak, but many, and there is always the chance that the sac of the aneurysm may become filled with laminated clot, and that it may ultimately calcify.

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C. M. HINDS HOWELL.

THE MUNICIPAL HOSPITAL SERVICE.

E work so hard and contentedly at Bart.'s that some things that are happening in London escape our notice or, at least, they attract less of our attention than they deserve. Yet everyone should read the recently published Volume IV (Part I) of the Annual Report of the London County Council, 1930, which deals with public health (general and special hospitals). There, in a condensed statement of facts covering 207 pages, and including 80 pages of statistical tables, is a record of the present task of the Central Public Health Committee of the London County Council.

In his preface to this volume, Sir Frederick Menzies gives some idea of the work which his Committee has undertaken:

"Between the closing of office hours on the evening of 31st March and the morning of 1st April, 1930, no fewer than 76 Hospitals and Institutions, containing over 42,000 beds and a staff of nearly 20,000, were transferred to the public health department of the London County Council. Prior to that date they had been administered by the late Metropolitan Asylums Board and the 25 Metropolitan Boards of Guardians, and thereafter they constituted one great hospital service under central direction and control."

This change in hospital administration in the County of London was determined by the Local Government Act, 1929. It marks an epoch not only in the Public Health Department, but also in the whole medical service of London. As time goes on it will fundamentally affect both the voluntary hospitals and the profession of medicine. The change-over was effected so smoothly and perfectly that no one would ever have known, unless they had been told so, that this great change had taken place, and this in spite of the fact that on the morning of April 1st, 1930, all the patients and staff were fed by a new authority; arrangements for the admission and care of the sick were uninterrupted, and all wages falling due at the appropriate date were paid. It must be placed on record that this was a remarkable achievement.

For those of us who are impressed by the importance and the traditions of the voluntary hospital service in London, with its 14,000 beds, it is stimulating to think of a municipal hospital service with more than 42,000 beds, controlled by a highly efficient organization, the London County Council.

The administrative control of most of the hospitals transferred under the Act, and the general medical services in the County of London, have been entrusted to the Central Public Health Committee of the Council. This committee took over fever hospitals, sanatoria for tuberculous patients, and hospitals for children and surgical tuberculosis from the Metropolitan Asylums Board. It took over 29 hospitals containing 18,074 beds previously administered by the 25 Metropolitan Boards of Guardians, together with one children's hospital and 12 infirmaries. The latter have now been allocated for use as hospitals. For the time being they are chiefly occupied by chronic sick and contain a proportion of able-bodied inmates. The committee has acquired Queen Mary's Hospital, Sidcup, mainly as a convalescent home (500 beds) for men.

In addition to the medical and surgical work provided by so large a number of beds for the treatment of acute and chronic sick in general hospitals, the variety of work done in the Council's hospitals is shown by the number of special hospitals under its control. The large fever hospitals are well known to all of us, for instruction in fevers has been provided in them for medical students since the Poor Law Act, 1889. It has been possible to reduce the accommodation for smallpox in recent years,

and Long Reach Hospital, with 250 beds, was rebuilt in 1928 as a permanent hospital for smallpox cases. The hospitals and sanatoria of the Council's medical tuberculosis service contain 1389 beds. There is also a small hospital for the treatment of women and girls suffering from venereal disease. A scheme is in progress for equipping 4 male and 4 female units with a total of 122 male and 89 female beds for the treatment of venereal disease. A hospital of 125 beds at Winchmore Hill was established in 1925 for the treatment of patients suffering from the effects of sleepy sickness.

The care of children forms a most important part of the Council's work taken over from the M.A.B. Special provision is made for children suffering from ophthalmia and other contagious diseases of the eye (also interstitial and phlyctenular keratitis), children suffering from contagious diseases of the skin and scalp, mentally deficient children, and children requiring convalescent treatment. At Queen Mary's Hospital, Carshalton (1312 beds), children suffering from rheumatic fever, orthopaedic disease, non-pulmonary tuberculosis and certain other diseases are treated.

The provision of maternity and child welfare services is limited by the fact that the City Corporation and the Metropolitan Borough Councils are the authorities responsible for the administration of the Act of 1918. The Council has, nevertheless, a few maternity beds set apart in its general hospitals, and a fully equipped maternity block with 36 beds and 3 labour wards at St. Andrew's, Poplar. Ante-natal clinics have been established at each of the Council's hospitals, except in the case of one hospital where the patients attend the borough clinics. The expansion of this service has been postponed for fuller consideration at a later date. At Edmonton and Brentwood the Council has two large colonies for epileptics, the former containing 342 beds, and the latter 488. 125 patients are maintained in voluntary epileptic colonies. The accommodation for and classification of mental patients, has been affected by the Mental Treatment Act, 1930, and certain rearrangements are being made in consequence of this Act. There are observation wards in 11 of the Council's hospitals. As far as accommodation allows, senile demented are transferred to the care of the Mental Hospitals Committee.

The auxiliary medical services include pathological laboratories, X-ray units, and a large ambulance service. The northern and southern group laboratories and the Belmont laboratories were taken over from the late Metropolitan Asylums Board. In addition to specialized and routine pathological work, these laboratories supply culture media, stains and certain stock vaccines to all institutions under the control of the Central Public

Health Committee. Diphtheria antitoxin is supplied by the Belmont laboratories. The quantity issued amounts to an average daily output of 1 million units of concentrated antitoxin. The pathological units are being considerably extended to provide for the growing needs of the municipal hospital service by the equipment of five "group" laboratories at the Lambeth, Archway, Lewisham, Mile End, and St. Mary Abbot's Hospitals, and by the provision of simpler laboratories for routine tests at other hospitals.

Readers of the JOURNAL will be chiefly interested in the medical service at the Council's hospitals. It is the policy of the Council to provide a whole-time medical service, and to maintain a permanent staff at every hospital.

The junior appointments are those of House Physician and House Surgeon (resident), and part-time Clinical Assistants (non-resident). The appointments are for six months to qualified medical practitioners, without their necessarily having had previous hospital experience. The period of engagement may be extended for further periods of six months up to a maximum of two years, provided that not more than twelve months are spent in one hospital.

Assistant medical officers come next in seniority. These appointments are made to qualified medical practitioners of at least one year's standing in their profession, who have held a residential post for at least six months in a general hospital. Though general hospital experience is desirable, lack of it does not necessarily debar an otherwise suitable candidate from appointment at a special hospital. Engagements are limited to four years, unless the officer's name is on the "promotion" list at the end of that time. Appointments are terminable at any time within the four years by a month's notice on either side. The first year's service is on probation.

Senior assistant medical officers: Preference is given to medical officers holding higher medical qualifications, M.R.C.P. or M.D. in the case of physicians, F.R.C.S. or M.S. in the case of surgeons, and in the case of "obstetric" officers to those holding a higher qualification, together with special experience in obstetrical work, preferably by having held an obstetrical post. Senior assistant medical officers acting as deputy medical superintendents at hospitals of 600 beds and under (except at the smallest hospitals) are graded Grade I officers.

Deputy medical superintendents will be employed as a rule only at hospitals of over 600 beds, Grade I deputies being employed at hospitals of over 750 beds, and Grade II deputies at hospitals of between 600 and 750 beds.

Medical superintendents: This is the senior office in the service. A candidate for this appointment should have high qualifications in at least one branch of medicine, and he should be both a good administrator and a first-class clinician. A decision as to consultant services has not as yet been reached.

The scale of salaries and emoluments is given in the following table:

Grade.	Remuneration exclusive of the emoluments of board, lodging and washing, valued at £150 per annum in each case.		
	Minimum.	Increase.	Maximum.
Deputy medical superintendent (Grade I)	£ 650	£ 50	£ 800
" " " " (" II)	600	30	750
Senior assistant medical officers (Grade I)	550	25	650
" " " " (" II)	500	25	600
Assistant medical officers	350	25	425
" " " " yearly engagement	250	—	—
House physicians and house surgeons	£80 (resident).		
Clinical assistants (non-resident)	£100 (non-resident and no emoluments, but meals when on duty)		

These scales are subject to certain modifications in the hospitals mainly used for convalescent and other special cases. The total maximal values of the office of medical superintendent vary between £1000 and £1650 per annum, including an unfurnished house. In the general conditions of appointment of all whole-time medical officers, it is a condition that the appointment is made to the Council's hospital service and not to an individual hospital. Appointment to the service includes liability to be called upon, if necessary, for consultation, and/or to perform an operation on a particular case at another hospital. But if, on account of the officer's special skill, he is frequently called to consultations at other hospitals, a grant of a personal allowance or some other form of extra remuneration may be considered. Whole-time permanent medical appointments are pensionable under the Council's superannuation and provident scheme.

In order to encourage the medical staff to improve their qualifications and to render additional professional knowledge or experience available for the benefit of the service, the Council have decided that leave of absence for a period not exceeding six weeks in any one year shall be granted to an assistant medical officer with rates of pay (not exceeding full pay) varying in accordance with the service of the officer concerned. When an officer continues his duties at the hospital or institution and requires only occasional daily leave for the purpose of attending a course of instruction for a medical degree or diploma, such leave on full pay and facilities

may be granted. A general condition is attached to the grant of such leave, namely, that on its expiry officers must remain for at least a year in the Council's service.

It will be obvious from this brief survey that the Municipal Hospital Service offers a great opening for those who wish to adopt an institutional life. For others it provides an opportunity of earning a livelihood and gaining invaluable experience as House Physician, House Surgeon or Assistant Medical Officer previously to entering private practice or some other independent path in medicine.

Municipal hospitals differ from voluntary hospitals in that they are under a statutory obligation to admit the destitute sick. Patients in municipal hospitals must pay the cost of their maintenance and treatment, either a fixed sum, or according to their means. Service in the municipal hospitals is in the main a whole-time service. To one like myself who has received a salary paid regularly every month as a temporary naval surgeon for 4½ years, and who has lived, as it were, from hand to mouth for many years as a private medical practitioner, it is obvious that the choice between a salaried appointment and private practice is a matter of temperament. In making a choice between these two walks in life a man must know himself.

GEOFFREY EVANS.

DIAPHRAGMATIC HERNIA, WITH REPORT OF A CASE.



RECENT case of congenital diaphragmatic hernia, admitted to the wards of the Surgical Unit, has so many features of interest and is of so rare a type that one feels justified in presenting it for publication. Search for details of similar cases has revealed that the subject as a whole is afforded little space in standard text-books of surgery. It is therefore felt that a more complete discussion may prove of interest. A clear conception of the various types of diaphragmatic hernia depends on an adequate understanding of the development of the diaphragm; it is proposed to deal with this subject fully, and then consider the various forms with reference to their mode of origin.

Development of the diaphragm.—The diaphragm is developed in five parts: (1) The central tendon, derived from the septum transversum; (2) the dorsal and antero-lateral muscle-sheets, each of which is bilateral. Three stages must be considered in its formation: (a) The formation of the septum transversum and pleuro-peritoneal canals; (b) migration of septum transversum and formation of muscle-sheets; (c) closure of pleuro-peritoneal canals.

(a) The primitive body-cavity, or coelom, is early divided into

four parts. At the cephalic end of the embryo it forms the pericardium, lying immediately ventral to the pharynx. Immediately posterior to this the primitive dorsal and ventral mesenteries of the fore-gut divide the cavity into the right and left coelomic spaces. The primitive ventral mesentery, in this region, extends only as far as the termination of the fore-gut, and hence, immediately posterior to this, the right and left coelomic spaces in the abdomen are thrown into one and form the peritoneal cavity. A second mesodermal partition is also found stretching obliquely across the body-cavity in the cervical region. This structure, the septum transversum, is of such importance in the formation of the diaphragm that its relations must be clearly understood. By the fourth week it is well marked, and when viewed in sagittal section, it is seen to be attached by its dorsal extremity at the level of the second cervical segment, from which it extends obliquely caudalwards to reach the ventral surface of the embryo, passing immediately dorsal to the pericardium (Fig. 1). Through its substance pass the primitive dorsal and ventral mesenteries of the fore-gut, which at this period are not differentiated from it, and hence the structures developed in these mesenteries—the aorta, oesophagus, azygos veins, thoracic duct, vagus nerves and inferior vena cava—perforate the median or

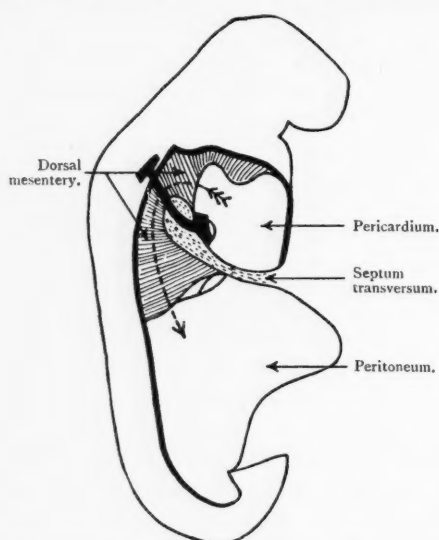


FIG. 1.—SHOWING RELATIONSHIP OF SEPTUM TRANSVERSUM TO PERICARDIUM, DORSAL MESENTERY AND PERITONEUM. ARROW INDICATES LEFT PLEURO-PERITONEAL CANAL—FIFTH WEEK.

central part of the diaphragm (1). Dorso-laterally the septum is deficient and is here in relation with the right and left coelomic spaces, later known as the pleuro-peritoneal canals. Around the margins of these canals the ducts of Cuvier pass from the dorsal body-wall to the sinus venosus and right auricle. The septum transversum is subsequently differentiated into two portions—(1) the pericardial, (2) the diaphragmatic.

(b) *Migration of septum transversum and formation of muscle-sheets.*—In the fifth and sixth weeks the lung buds appear and develop rapidly. Lying at first in the mesentery of the fore-gut, they grow outward on each side into the narrow pleuro-peritoneal canals—the portion of the coelomic lining which is invaginated as a covering on the lung bud becoming the visceral pleura. During the fifth week the pleural cavities are situated in the cervical region under the fourth and fifth spinal segments; as they expand they dislocate from the neck and depress within the body-cavity a partition, which completely divides it into thorax and abdomen. The rapid expansion of the pleural cavities forces the septum transversum down into the thorax. At the same time they burrow into the body-wall, producing an infolding of the innermost layer of the two primitive muscle-sheets to form the musculature of the diaphragm. Thus the inner layer of the primitive subvertebral musculature is folded in on either side and sinks down into the substance of the dorsal mesentery, to form the two dorsal portions of the diaphragm.

A similar separation of the innermost layer of the two ventral longitudinal sheets forms the antero-lateral or sterno-costal portions of the diaphragm. All these sheets obtain an insertion into the septum transversum. A small intermuscular interval, the foramen of Morgagni, may be recognized between the sternal and costal portions of the antero-lateral sheets (Fig. 2). The dorsal sheets derive a nerve supply from the third and fourth cervical segments, and the antero-lateral from the fourth and fifth. An extension forward of the pleura, through the upper surface of the septum transversum separates the pericardial from the diaphragmatic portions. By the eighth week that part which contains the great veins has become an integral portion of the dorsal aspect of the pericardium.

As the diaphragm passes downwards during the fifth and sixth weeks the stomach is also carried caudal-wards, from its retro-pericardial position, with subsequent elongation of the oesophagus. Should this migration be incomplete two results may ensue: (1) Permanent arrest takes place. The oesophagus remains abnormally short; the cardiac end of the stomach occupies and distends the normal oesophageal orifice, a portion of the peritoneum extending over its surface to invest it with a sac. (2) Descent is completed at a later period, the oesophagus being drawn out to its normal length and the stomach passing entirely within the abdomen. The peritoneal diverticulum above referred to persists on one or both sides of the oesophagus as the para-oesophageal recess, into which subsequent herniation may occur.

(c) *Closure of the pleuro-peritoneal openings* is completed at the sixth to seventh week by the formation of a double fold of pleura

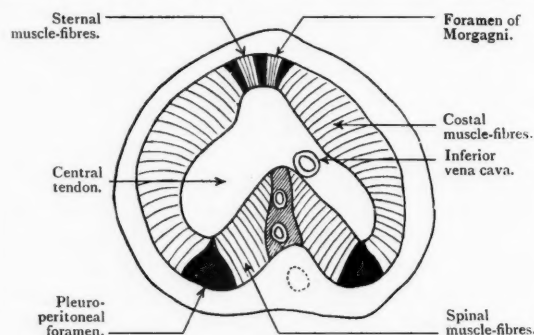


FIG. 2.

and peritoneum across their lumen. Obliteration of the lumen is effected by zygotis or growth adhesion, assisted by outward migration of the spinal fibres to the arcuate ligaments and inward migration of the costal fibres to the eleventh and twelfth ribs. The permanently collapsed state of the lungs permits the liver on the right side and the abdominal viscera on the left to force the diaphragm up against the thoracic wall, and obliterate the orifice by mechanical pressure. Up till the twelfth week these orifices can be recognized as pale areas devoid of musculature. Complete formation of the diaphragmatic musculature takes place by the twelfth week.

It will thus be seen that three periods can be recognized in the formation of the diaphragm: (1) Up to sixth week approximately, pleuro-peritoneal canals patent; (2) sixth to twelfth weeks, canals closed by double fold of pleura and peritoneum, diaphragmatic musculature incompletely developed here and elsewhere; (3) twelfth week onwards, musculature completed.

It will be remembered that the right dome of the diaphragm covers the developing liver, whilst the left is completely occupied by a small portion of the liver and the stomach and intestine, together with the suprarenal body. The distal portion of the mid-gut, or colon, is at this period (fifth to eighth week) undergoing rotation around the vitelline artery. "The grouping of intestine in this region is due to the fact that this is the most roomy part of the abdominal cavity, the antero-posterior diameter of the lower abdomen being much less, and the pelvis merely a potential space" (2).

Ætiology.—Two factors are concerned in development of hernia through the diaphragm: (1) A breach or point of weakness in its structure; (2) an increase of intra-abdominal pressure

Increased intra-abdominal pressure may occur within the fetus as well as in adult life. Normally a portion of the intestine lies at first in the extra-embryonic coelom. An early return of this portion of the bowel to the abdominal cavity—before the eighth week—will cause an increase in pressure before the diaphragm is fully formed and so herniation may be produced. After the fifth or sixth week the resulting protrusion of intestine will, as shown above, carry with it a peritoneal sac, whether this occurs through the obliterated pleuro-peritoneal canal, or at some point of weakness such as the foramen of Morgagni. Such a sac may retain its contents till adult life without giving rise to symptoms, or form a recess into which intestines may be forced at a later date. Of these the former is the most probable occurrence. Some authorities regard the presence of a peritoneal sac as indicating that the hernia is acquired. Thus Lawford Knaggs (3), in describing 8 cases of hernia at the oesophageal orifice, found a peritoneal sac in 6. "This," he states, "is conclusive evidence that the rupture has been acquired." An acquired hernia will, however, always carry a peritoneal sac with it, unless the peritoneum is injured in the causative lesion.

The following classification may be adopted:

1. **Traumatic.**—Due to: (a) *Laceration*: Stabs, gunshot wounds, etc., affecting chiefly the costal region of the diaphragm.

(b) *Compression causing rupture* of muscle-fibres, or protrusion through the normal openings of the diaphragm.

2. **Congenital.**—(a) *Through congenital apertures*: (1) Persistent pleuro-peritoneal hiatus; (2) absence of left half of diaphragm.

(b) *Hernia at lines of fusion.*

(c) *Hernia at oesophageal orifice.*

(d) *Hernia through the dome.*

Hernia through a persistent pleuro-peritoneal hiatus is the commonest type, occurring more frequently on the left than right, owing to the protection afforded to the latter side by the liver. It is due to increased pressure causing protrusion through the hiatus before the pleuro-peritoneal membrane closes the aperture, hence the absence of any sac. The contents of such herniæ include the stomach and intestines and occasionally the suprarenal. A large portion of the bowel being intra-thoracic, such herniæ are incompatible with life. In Keith's series of 21 cases (4), only 2 survived more than a few weeks after birth. An extreme degree of this type is hernia into the pericardium. Associated congenital defects resulting from this condition are: (1) Incomplete rotation of the bowel, further rotation being arrested after the gut becomes herniated; (2) incomplete development of the lung; (3) dextrocardia (rare).

Absence of left half of diaphragm.—In this type the

dorsal and antero-lateral muscle-sheets on the left side have not formed; the pleura and peritoneum, however, develop normally and form a continuous sheet. The partly-rotated intestine being almost entirely intra-thoracic, the condition is usually incompatible with life.

Hernia at the lines of fusion may occur at three sites: (1) The pleuro-peritoneal hiatus after closure by the pleuro-peritoneal membrane; (2) the foramen of Morgagni (rare); (3) the line of fusion of the dorsal mesentery and septum transversum.

The method of formation has already been discussed. In the first two types a peritoneal sac is always present, and the gut is rotated to a degree corresponding to the date of formation, being frequently accompanied by a partly detached left lobe of the liver, presumably forced through with the bowel at the time of formation. In the third type the stomach is usually herniated at the line of fusion.

Hernia at the oesophageal orifice occurs into the para-oesophageal recess. The stomach constitutes the usual content of such herniæ, and is sometimes accompanied by portions of partly rotated intestine. Simple arrest of descent of the stomach should not be included under this heading. In this respect the conclusions of Findlay and Brown Kelly (5), in their paper on "Congenital Shortening of the Oesophagus and Thoracic Stomach," may be quoted: "If the abnormality under consideration is due to congenital shortening or hypoplasia of the oesophagus, whereby the stomach is prevented from descending into the abdomen, the portion of the stomach remaining above the diaphragm cannot then be said to have herniated into the thorax."

Hernia through the dome arises from the septum transversum giving way from increased intra-abdominal pressure, usually before the diaphragmatic musculature is completed, *i. e.* before the twelfth week. The left side is most commonly affected. The presence of the left lobe of the liver (a frequent content of such herniæ) has given rise to the suggestion that they are caused by perforation of the diaphragm by an abnormally developing liver. In one case in which both right and left domes were perforated by portions of a liver which was developed in three parts this is the most probable explanation. The liver, however, is developed immediately posterior to the septum transversum, from the peritoneum on the under-surface of which its ligaments are derived. It is therefore more probable that the liver is forced through with the extruded intestine. A peritoneal sac is present in roughly half the cases of this type. Incomplete rotation of the bowel is less frequently met with, possibly owing to herniation occurring at a later date.

Congenital hernia may be incompatible with life at birth, or persist without giving rise to symptoms till early adult or middle life, or may be discovered by accident at post-mortem. *Symptoms* may affect the digestive, cardiac and respiratory systems. Indigestion, dyspnoea and cyanosis are the commonest. Profound anæmia has occurred in several cases owing to severe melæna caused by venous congestion. *Physical signs* are those of a pneumothorax, usually on the left side, borborygmi being heard over the affected area. X-rays and fluoroscopy are a valuable aid to diagnosis, the diaphragm showing lack of excursion on the affected side. *Complications* include acute intestinal obstruction, acute distension of herniated stomach, volvulus of stomach, gastric ulcer with and without perforation, acute and chronic appendicitis in misplaced appendix, sudden cardiac failure.

Report of a Case.

E. H. M.—, æt. 29, a salesman, was admitted to Percivall Pott Ward under care of the Surgical Professorial Unit (1:2:32) complaining of pain in the stomach after food.

History of present condition.—1924: Onset of colicky upper abdominal pain, situated chiefly in epigastrium, occurring two hours after food, relieved by more food. No nausea, vomiting or melæna. Bowels acted regularly. Micturition normal. Numerous attacks since then, chiefly in winter months.

December, 1931, last attack commenced; pain now occurs immediately after food, relieved by passing flatus or bringing up wind.

Past history.—No previous illness; no injury.

On examination.—Healthy man. Chest: Apex-beat in fifth space $3\frac{1}{2}$ in. from mid-line. Area of cardiac dullness obscured by tympanitic note, extending as high as third rib, variable in extent, usually covering whole præcordium. Heart-sounds were natural. Borborygmi audible over whole præcordium, accentuated after coughing. Expansion of lungs and respiratory movements normal.

Abdomen: No physical signs. *Per rectum* hæmorrhoids, internal and external; congestion of rectal mucosa. Benidine tests for occult blood negative on three occasions.

X-rays.—Plate A: Barium enema and bismuth swallow shows œsophagus filling normally. Partially gas-filled portion of bowel situated immediately posterior to the sternum, above the level of the diaphragm.

Plate B: Barium enema. Terminal ileum, appendix, cæcum and colon above the level of diaphragm. Constriction of colon suggests point of compression at anterior attachment of diaphragm; gut is partly rotated and under-developed, there being no hepatic or splenic flexures, and the distance from cæcum to pelvi-rectal junction abnormally short.

Operation (by Mr. T. P. Dunhill), 16:2:32.—Abdomen was opened by a 6-in. supra-umbilical mid-line incision. Peritoneum was opened and terminal ileum was seen to be ascending and portion of colon descending, immediately in line of incision, and passing through an abnormal aperture in the anterior part of diaphragm, posterior to xiphisternum. Peritoneal hernial sac was present. Palpation within the sac showed that it extended 3 in. to the left anterior to pericardium and $2\frac{1}{2}$ in. to the right, anterior to the thin lower portion of right pleura. The neck of the sac admitted four fingers.

Contents.—Terminal ileum, cæcum, appendix, portion of colon and small mal-developed left lobe of liver, lying curled around right postero-lateral margin of sac.

Contents were withdrawn readily. The appendix was found to be bound down with numerous adhesions. Mal-rotated colon still preserved a primitive dorsal mesentery in its entire length as far as the iliac colon. The sternum was divided in the mid-line and the sac was exposed from above, separated from the pleura and reduced. The diaphragm was closed with three fascia lata suture grafts. Appendicectomy was performed, and the colon was anchored to

right wall of abdomen forming an hepatic flexure. The wound was closed with drainage. The patient made an uninterrupted recovery, subsequent X-rays showing that the colon had completed its rotation, the cæcum lying in the right iliac fossa.



PLATE A.



PLATE B.

Summary.—This case presents the following features :

- (1) Hernia through the foramen of Morgagni is extremely rare. (2) The origin was congenital, as evidenced by the incompletely rotated colon with its primitive dorsal mesentery and abnormally short length. (3) The presence of a peritoneal sac fixes the date of formation at some time later than the sixth week, which corresponds with the degree of rotation of the colon. (4) Symptoms were attributable to the chronically inflamed appendix and not to the hernia itself.

My thanks are due to Mr. T. P. Dunhill, Associate Surgeon to the Surgical Professorial Unit, for his kind permission to publish this case, and to Mr. J. B. Hume for permission to reprint an illustration from his article in the *British Journal of Surgery*, from which I have also obtained many references and much valuable information.

G. C. KNIGHT.

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ON "CHRONICS."

TIS with a certain bitterness that one reflects upon the huge figure representing the number of out-patients treated annually at this Hospital; for while surgical cases are grudged each foot of unnecessary bandage, far larger numbers of healthy ladies from the East End carry off bottles and bottles of medicine every day, return a week later and ask for more.

It may be said that three sorts of medical patients attend the surgery, children, patients genuinely ill, and those whom we affectionately know as "chronics." Upon the first two classes time and trouble are always well spent, and they in turn are very grateful for their treatment. Unfortunately they are rare, for every morning the chronics arrive in overwhelming numbers and fill the Surgery from door to door. Their reason for coming is obscure, for it is certain that they look down upon the Hospital as an inferior institution. How often is one greeted with the remark, "I have been much too ill to come to hospital, but couldn't afford a private doctor any longer." Perhaps the private doctor

deliberately raised his fees in the hope that his patient would turn elsewhere! Be that as it may, at the back of their minds is the comforting knowledge that they are getting something for nothing, as well as a pleasant holiday from the morning's work at home. Chronics have their own days of attendance; fine days and Saturdays are immensely popular, while on Mondays one sees but a few. Others favour the late afternoon and come up at that time with obstinate persistence. From Whitechapel and Hoxton and Spitalfields they come—(Why don't you go to the London Hospital? "I wasn't satisfied with the treatment there!")—and they sit upon our benches gossiping throughout the morning and exchanging symptoms with one another. It is a lively gathering.

But once in the box their whole demeanour changes: their faces become drawn and their voices melancholy, and in every possible way they strive to give the impression that they are dying. They are optimists, however, and carry less conviction than a bulky Jewess who once waddled up to my table wailing, "Doctor, I waste so much that I lose my clothes!" Nevertheless it is these patients who *insist* upon being examined, who volubly deny all knowledge of the existence of alcohol, and who waste more successfully than any others the time of the doctors and nurses alike. No treatment is of the slightest avail, and if by some rare chance an organic disease is discovered, they loudly proclaim that they do not hold with insulin—that they are too ill to have their teeth extracted—that in *their* opinion they should be "put under the X-ray." Undaunted by receiving "more advice than treatment," they return week after week. With every visit a fresh symptom has appeared, yet an inquiry as to how and when they take their medicine reveals the fact that they have not even troubled to read the label on the bottle. At last the inevitable happens, and they are referred by a disillusioned and exhausted H.P. to one of the special departments, where they take hold with an even firmer grip.

It is a tragedy that a great hospital, taking its place amongst the highest courts of medical authority (albeit in urgent need of money), should thus be heavily encumbered by patients for whom the only treatment and the only possible advice is—"Get away from your homes." Yet unconsciously they, too, realize that this is what they need, and sick in mind rather than in body, they visit the Surgery as often as may be, wasting the time and tempers of all with whom they come into contact, and costing the Hospital a large sum for treatment which is altogether ineffectual.

If ever censorship were needed, it is needed here.

H. B.

ABERNETHIAN SOCIETY.

Prof. Hugh Cabot, who has promised to give the Summer Sessional Address on Thursday, April 14th, at 8.30 p.m., announces that the title of his lecture will be "Hunting with a Movie Camera in Northern British Columbia," and not "Further Travels with the North American Indians," as previously stated.

A meeting of the Society was held on Thursday, March 10th, at 5.30 p.m., in the Abernethian Room, with the President, Mr. Fawcett, in the chair. Sixty-two members were present when the President called upon Dr. Maxwell to open a discussion on "Need we lose our tonsils."

In his preliminary remarks Dr. MAXWELL congratulated the Society on choosing this subject for their discussion, and he referred to the marked absence in surgical literature of any mention as to the why and wherefore of tonsillectomy. As to the justification for the 250,000 tonsillectomies performed yearly in this country, who knew to what end the majority were carried out, and how many students were instructed when such operations should be undertaken?

The present-day knowledge on these all-important questions is hopelessly at variance, and the inadequacy of experience and teaching of the student is the root for the abuse of this operation. All that the young practitioner is taught, before he leaves his *alma mater*, is that the tonsils are vestigial structures and therefore a livelihood for young enthusiastic surgeons.

A subject might be classified in a number of ways; we might stick to the old method of congenital and acquired, or trauma, inflammation and new growth, but in classifying a community these were obviously inapplicable, and Dr. Maxwell suggested that he might divide the present meeting into (a) the non-tonsillectomized, (b) the tonsillectomized, (c) a combination of both. He would first ask the non-tonsillectomized, "What ill-effects do they feel from having these vestigial structures, and do they feel inferior or superior to their opponents?" He would then turn to the tonsillectomized and inquire "How much better they were for losing their tonsils?" To the third group he would ask "Whether they were prepared to undergo tonsillectomy again, and how much worse they were made by the operation?"

It was obviously difficult to answer these questions, and there are no statistics at hand to consult, but the important criteria are (1) the absence of sore throats and colds, (2) the alleviation of causal conditions, (3) the escape from harmful after-effects. In regard to the first criterion, it must be remembered that many of the sore throats in childhood tend to disappear in the course of time, while only a small number of the tonsillectomized are without sore throats of the dry pharyngeal type. The more important after-effects which are constantly being met with are (1) bleeding from the site of operation, (2) local sepsis, which occasionally spreads to a generalized septicæmia, (3) antral infection, (4) lung abscess, (5) remote effects, e. g. deafness, mental defect.

Recurrence was by no means rare, and in Dr. Maxwell's experience the maximum number of tonsillectomies in one patient was four, although he had heard of as many as seven. He was told by the authorities that regrowth of the tonsil took place from the lingual pole.

In conclusion he said that 80% of the present operations were unnecessary, but there still remained a small group of patients on whom it might be performed with justification. These indications were:

(a) *Local*.—Recurrent sore throats (more than three, and after palliative measures had been tried without success), quinsy, grossly diseased tonsils.

(b) *General*.—For the elimination of focal sepsis:

- (1) In recurrent bronchitis.
- (2) In rheumatoid arthritis.
- (3) In acute rheum. m.
- (4) In acute hæmorrhagic nephritis during the quiescent stage.
- (5) In Graves's disease—thyroidectomy may be averted.

The main contra-indications which were so greatly ignored to-day are:

- (1) Normal tonsils.
- (2) As a speculative measure.
- (3) In the presence of active infection, either local or general.

The President then asked Mr. C. H. Hogg to open the discussion on the surgical side.

Mr. HOGG said that he was largely in agreement with what Dr. Maxwell had said, and was sorry that he could not turn the discussion into a heated argument between physicians and surgeons.

The functions of the tonsils are not known, but two main theories existed:

- (1) That they function as other lymphocytic structures in being a barrier to infection.
- (2) That they are living test-tubes for the formation of antibodies.

The fact that large tonsils do not necessarily mean disease is constantly overlooked in school clinics and by young practitioners, for the hypertrophy must be accompanied by enlargement of the adenoids and cervical glands before tonsillectomy is justifiable.

The local indications for the operation are:

- (1) Recurrent sore throats (more than two).
- (2) Quinsy.
- (3) Chronic cervical adenitis after excluding carious teeth.
- (4) Otitis media is often due to neglect of adenoid and tonsil vegetations in childhood.
- (5) General infection of the tonsil leading to fætor oris, etc.
- (6) Diphtheria carriers.
- (7) ? Recurrent colds and sinusitis.

The contra-indications, besides those already mentioned, are:

- (1) Before the age of two it is generally inadvisable.
- (2) Hæmophilia.

Old age was not considered to be a contra-indication.

Mr. Hogg then dealt briefly with the methods of the operation, which are vitally important for gaining success. He said that enucleation was by far the most satisfactory procedure, and should be performed whenever possible, if not as a routine. Diathermy must be guarded against, as it "cooked" only a small portion of the tonsil and left a sloughing remnant, which often shut off a small sac of buried pus.

Lung abscess was very uncommon, and should not be seen with modern technique and suction apparatus. Finally it is important to warn all patients who are singers that their voice may be altered by the operation—the beautiful soprano sometimes becomes a deep contralto.

The discussion was then open to the meeting.

Mr. BOYD said that Dr. Maxwell had painted a very pessimistic picture in regard to the harmful effects of the operation. Lung abscess was especially rare, and there had been only one case out of 2000 tonsillectomies at this Hospital during the previous year. The mortality of the operation was practically *nil*, and in only seven cases of this series had there been any definite harmful after-effects. The complications were no doubt more obvious in the provinces and at other hospitals where the technique was bad.

In Mr. Boyd's experience he found that his friends who had had tonsillectomy were free from sore throats for a year or more, but that they eventually developed a granular pharyngitis which was worse than the original tonsillitis. In conclusion he suggested that adults should think twice before having their tonsils removed, but that the risk of complications to which they would be likely to succumb was very slight.

Mr. ROBERTSON stated that at the age of thirteen he had his tonsils and adenoids removed on account of his being a mouth-breather. When he is in London he now finds that he suffers from sore throats, but on staying in the country all symptoms disappear. He therefore suggested that surgeons should consider whether a patient is going to spend the rest of his life in a town, where he is constantly in contact with infection, or in the country, where he would be free from it.

Mr. R. F. PHILLIPS considered that the question of the tonsils and focal sepsis was really of little importance, but that in children the effect of enlarged tonsils and adenoids in producing deafness and consequent mental backwardness was not fully recognized.

Mr. CHIVERS said that he had tonsillectomy at the age of 4, and that ever since he had suffered from sore throats, bronchitis and antral trouble.

Mr. KERSLEY favoured tonsillectomy in rheumatoid arthritis.

It was suggested that a census be taken of the present meeting, which was as follows:

Non-tonsillectomized	23	
Tonsillectomized	23	
(a) After age of 7	10	improved, 8. not improved, 2.
(b) before age of 7	13	

In reply Dr. MAXWELL said that he was afraid these figures illustrated nothing. (Cheers.) He summarized his remarks by saying that in his opinion 80% of tonsillectomies were unjustifiable, and that

by persevering with the ordinary palliative methods (gargles, coll. alk. pig. mandl), patients could hope for complete amelioration of their sore throats and thus preserve their tonsils.

The PRESIDENT passed a hearty vote of thanks to Dr. Maxwell and Mr. Hogg for opening this discussion and for giving the Society such an enjoyable evening.

The meeting was then adjourned.

STUDENTS' UNION.

RUGBY CLUB.

The Annual General Meeting of the Rugby Club was held on Monday, March 7th, 1932, in the Committee Room, the President, Dr. Barris, being in the Chair.

The officers for the coming season, 1932-33, were elected as follows:

President: Dr. J. D. Barris.

Vice-Presidents: Mr. W. Girling Ball, Mr. H. E. G. Boyle, Mr. F. C. W. Capps, Dr. C. H. Harris, Mr. J. P. Hosford, Prof. E. H. Kettle, Mr. G. L. Keynes, Dr. Wilfred Shaw, Sir Charles Gordon-Watson.

Captain: W. M. Capper.

Vice-Captain: E. M. Darmady.

Hon. Sec.: J. R. Kingdon.

Hon. Treas.: J. R. R. Jenkins.

Capt. "A" XV: J. W. Cope.

Hon. Sec. "A" XV: L. H. Buckland.

Hon. Secs.:

Extra "A": D. A. Prothero.

"B" XV: A. R. C. Young.

Extra "B" XV: T. H. Mason.

"C" XV: D. C. S. Kendal.

Extra "C" XV: F. G. Hollands.

Results.

Sat., February 27th, *v. Nuneaton*, away, lost 3-5.

Sat., March 5th, *v. Rosslyn Park*, home, lost 8-14.

Sat., March 12th, *v. Moseley*, home, lost 3-16.

Final Junior Hospital Cup.

London "A," won, 8-5.

THE JUNIOR RUGBY CUP.

The Junior Cup-ties this year have all been close and hard fought. The total margin of 8 points for all three matches is a very narrow one indeed.

Second Round: *v. Guy's Hospital.*

Played at Winchmore Hill.

Guy's were the first to score, and held their lead at half-time (5-3), Thomas having crossed far out just before the interval. In the second half the Bart.'s forwards, fitter than the opposing pack, forced their advantage and gave their backs plenty of the ball. Nel kicked a good penalty goal and gave us the lead (6-5). Play remained in Guy's "25," and Beilby crossed under the posts, but the kick failed (9-5). Guy's rallied well after this, but Bart.'s stuck to it and forced them back, and from a tight scrummage near their line Ward sent Cope over on the blind side (12-5). Secure with a 7-point lead and a minute to go Bart.'s slacked off badly, and Guy's went straight through from the kick-off to score under the posts. The try was converted (12-10). "No-side" followed immediately.

Semi-final: *v. St. Thomas's Hospital.*

Played at Winchmore Hill.

Bart.'s were without Thomas and Swinstead, who were injured. St. Thomas's started strongly. They had fast bustling forwards, and kept Bart.'s within their own "25." A penalty goal for offside gave Thomas's an early lead. Towards the end of the first half, however, the Bart.'s forwards began to wear down their opponents. As a result of a rush Wilson went over in the corner (3-3). No further score in the first half. After the resumption Thomas's again started strongly, and after a quarter of an hour's play a good movement on their left wing enabled them to score near the posts (8-3). The Bart.'s forwards rallied well. Nel, at full-back, was in his best form, and eased the work of the forwards with fine length

kicks. This probably saved the game, for the forwards were now again establishing themselves in control. After long pressure on the St. Thomas's line Buckland raced round his man to score under the posts. Nel converted (8-8). A few minutes to go. The ball was carried again to the Thomas's line. At last, from a loose maul the ball came out. Beilby took it, beat his man, passed into the forwards, Lewis secured the ball and forced his way over. The kick failed (11-8). "No side" soon followed.

The Final *v. London Hospital.*

Played on the St. Thomas's ground at Chiswick. Without Lewis, and the last-minute scratching of Nel, our chances did not seem very bright. The London had a full and strong side out. Baker was taken from the pack to full back and Hanbury Webber brought in to take his place in the middle of the back row. The first quarter's play was rather dull, and many opportunities were missed by both sides. Territorially Bart.'s had the advantage. The game was seldom out of the London "25." A brilliant cut-through by Beilby gave Bart.'s the first score. The kick failed. Much encouraged the Bart.'s forwards rallied and the game became very keen. There was no further score, however, in the first half, and we crossed over with a 3-point lead. London were unfortunate at this point to lose Heanly, who received a cartilage injury and left the field with a locked knee. With only seven forwards London started the second half strongly, and their forwards began to gain the upper hand. Ward frequently relieved the pressure with fine kicks along the touch-line. The London effort was soon rewarded. A blind-side movement started by Fisher, their scrum-half, resulted in their left wing scoring far out. A magnificent kick gave them the lead, 5-3. Bart.'s then rallied and made a superb effort. The forwards were getting the ball consistently in the tight scrums, and Ward gave Beilby fine long passes from the scrum. The backs resorted to long punts ahead and gained considerable ground. At last, Kirkwood, running strongly, forced his way over, only to drop the ball when he was clear. The London cleared from the 5-yard scrum, but Bart.'s rallied again and forced their way back to the London "25." A fine movement on the right, and Fairlie Clark was away with his wing man up on the outside and Beilby inside. A well-timed inside pass to the latter enabled him to race away to score beneath the posts. Baker converted (8-5). Only a few minutes left, the London rallied and forced their way into our "25." A fine forward breakaway and Hutton seemed to have our line at his mercy, but he hesitated and ran across, only to be overtaken by Kirkwood. The pace was now very fast; London were making a final effort. Baker kept them out, however, with good-length kicks, and play returned to mid-field till "no-side." Bart.'s, 8 points; London, 5 points.

Of the Bart.'s forwards Wilson was very conspicuous in the loose. In the line-outs Barber and Grant did good work. Moynagh hooked well throughout the game; Ward and Beilby were excellent at half. Kirkwood ran very strongly in the centre; Baker was an excellent substitute at full-back.

Team.—F. J. Baker (*back*); L. H. Buckland, G. A. Fairlie Clark, R. M. Kirkwood, J. W. Perrott (*three-quarters*); F. J. Beilby, F. G. Ward (*halves*); F. H. Masina, K. D. Moynagh, E. E. Harris, A. H. Grant, A. Barber, J. D. Wilson, R. Hanbury Webber, J. W. Cope (*forwards*).

HOCKEY CLUB.

FINAL OF THE SENIOR HOSPITALS' CUP.

ST. BARTHOLOMEW'S HOSPITAL *v.* ST. THOMAS'S HOSPITAL.

Played at Kent House on Thursday, March 10th. Won, 1-0. The 1st XI finished a very enjoyable season by just defeating St. Thomas's in a close game for the Hospital Cup. As is usual in such games, the hockey seen was only of a moderate standard, play being more remarkable for its keenness than for its cleverness. Quite a decent crowd lined the touch-line, and we were grateful to those Bart.'s men who came and cheered us on to victory. The ground was in very good condition, though it soon cut up considerably.

The game began at a good pace, everyone going all out, though the St. Thomas's men seemed to be just a little quicker on the ball and keener in tackling. The teams appeared very evenly matched, with the defence prominent on both sides. Two or three times Bart.'s came very near to scoring, but the ball was well cleared by the Thomas's goalkeeper, who came out of his goal just at the right moment. Thomas's pressed, too, at times, but their forwards lacked cohesion and finish, and few of their movements looked really

dangerous. On the whole Bart.'s had the best of the first half, though neither side had scored up till then.

The second half started promisingly, but soon degenerated into typical cup-tie play. Both teams were hitting wildly, there was little or no combination between individuals, and both umpires had plenty to do. Thomas's had the best of this half, and twice only an excellent save by Hodgkinson kept them from scoring. They forced three or four corners, but were not quick enough to take advantage of them. They gave the impression of playing far too much to their right-wing forward, who, though very good, yet was naturally well marked by both Hunt and Hindley, and had little opportunity of using the passes sent to him. Finally a corner gave us our chance. The ball was stopped for Hay-Shunker to send in a hard shot, and Davidson, following up very closely, took the rebound off the goal-keeper's pads, returning it like a flash into the net.

Thomas's tried their very hardest to equalize in the remaining five minutes, but unsuccessfully, and finally the whistle went for time, Bart.'s having won somewhat luckily by the only goal scored in the match.

Five days later a similar result was recorded in the final of the Junior Hospital Cup, Bart.'s beating Thomas's after an excellent and fast game by 1 goal to nil.

RETROSPECT.

Looking back on the past season we have reason to be satisfied with the results. Since Christmas the 1st XI have lost only one match (and on that occasion only five of the regular team were playing). The 2nd XI have done almost equally as well. And the season has been fittingly wound up by the winning of both the Senior and Junior Hospital Cup Competitions. The annual general meeting of the Club will shortly be held, at which everyone interested in hockey is invited to attend.

CRICKET CLUB.

Fixtures have been arranged for three elevens. New members are asked to put their names on the list in the Abernethy Room. There will be a practice game and nets towards the middle of April.

1st XI Fixtures.

Sat., April 30.	Southgate	Home.
Wed., May 4.	Wanderers	"
Sat., " 7.	Hampstead	"
Sat., " 14.	Winchmore Hill	"
Mon., " 16.	Croydon	Away.
Sat., " 21.	Metropolitan Police	"
Thurs., " 26.	M.C.C. . . .	Home.
Fri., " 27.	St. John's College, Cambridge	Away.
Sat., " 28.		
Sat., June 11.	Past v. Present	Home.
Wed., " 15.	Guy's Hospital	Away.
Sat., " 18.	Old Paulines	"
Sat., " 25.	Old Leysians	Home.
Wed., " 29.	King's College, London	"
Sat., July 9.	Hornsey	"
Sat., " 16.	Shoeburyness Garrison	Away.
Wed., " 20.	St. Anne's	"

Draw for the Hospitals' Cup.

London	{	{
St. Thomas's		
Charing Cross		
St. George's		
King's	{	{
Middlesex		
St. Bartholomew's		
St. Mary's		
Guy's	{	{
U.C.H.		

J. B. B.

INTER-HOSPITALS' CROSS-COUNTRY CHAMPIONSHIP.

This was run at Richmond, from the Hospitals' headquarters, Drs. Tidy, Munro and Morley Fletcher kindly judging the race. There were about 35 starters, with the result of the team race apparently

rather open, although Sandiford, of Thomas's, was perhaps slightly the favourite for individual honours.

After the usual jostling at the start, there was a great struggle for leadership, Sandiford, Strong and Kinnear (Bart.'s) and Smyth (London) all running together, with Lewis (London) and Dalley (Bart.'s) a little way behind, followed by Perrott (Bart.'s), and then Morris (Thomas's) and Lee (Bart.'s). After just over a mile Lewis dropped back and Dalley joined the leaders, who ran in a bunch for a couple of miles, the leadership continually changing hands, leaving the rest about 300 yards behind. By this time, unless the impossible happened, we were obviously going to win, having three men in the first five, and 7th and 8th.

Sandiford started to push the pace, thus splitting up the leading five, and for the first time looked like winning. Smyth and Strong challenged him, but the latter could not last the pace and was caught up again by the other two Bart.'s men, leaving Smyth and Sandiford to fight it out between themselves. Sandiford had the better finish, and won by 150 yards in 38 min. 13 sec., thus scoring his fourth individual win. Strong, Kinnear and Dalley, reassured as to the team result, were content to finish together, hand in hand, to the obvious delight of the spectators. Much to everyone's surprise the next man home was Perrott, who, with practically no training, ran a very plucky race, just beating Morris after a great struggle. Our fifth man home was Lee, who, in spite of the claims of "District," ran well to finish 8th.

The whole team ran much better than was expected, and we were easy winners, beating Thomas's (holders) by 21 points, and, incidentally, creating a record by getting our scoring five in the first eight. The last time we won was in 1926, but with a young and promising team we should repeat this year's success for several years to come. A very encouraging feature of the day was the number of Bart.'s men who turned up to cheer, and, thanks to a plentiful supply of cars, easily followed the progress of the race.

Order and team placing:

	min.	sec.
1. H. B. C. Sandiford (St. Thomas's)	38	13
2. P. M. Smyth (London)	38	32
3. { J. R. Strong } { A. I. Kinnear } (Bart.'s)	39	12
{ A. Dalley }		
6. J. W. Perrott (Bart.'s)	39	45
7. R. S. Morris (Thomas's)	39	52
8. H. B. Lee (Bart.'s)	39	54
9. J. L. Lewis (London)	39	56
10. P. A. Forsyth (Thomas's)	39	58
1. St. Bartholomew's (3, 4, 5, 6, 8)	= 26 pts.	
2. St. Thomas's (1, 7, 10, 14, 15)	= 47 "	
3. London (2, 9, 11, 12, 19)	= 53 "	
4. Guy's (13, 16, 17, 18, 20)	= 84 "	

BOXING CLUB.

The activities of the Club ceased after the Inter-Hospitals Boxing Tournament, which was held on March 4th.

The season was a not too prosperous one, and owing to illness and lack of support results were not up to past standard. Nevertheless, a strong and enterprising team of seven men (L. R. Taylor, the middle-weight, was unfortunately taken ill at the last moment) made a good and hearty attempt at regaining the Boxing Cup from St. Thomas's. Though failing in their object one cannot forget the whole-hearted attempts of most of the members of the team.

F. G. Ward, W. H. D. Trubshaw and B. F. Jackson are deserving of great credit for their gameness in the ring, and were only beaten by the narrowest of margins. It is hard to forget also the keen pugilistic spirit of S. P. Mullick and A. H. Hunt, who, despite the lack of any serious training, entered the ring full of grim determination. Our condolence to J. H. Armstrong, who had the misfortune to fracture his thumb, and so was deprived of an almost certain victory.

The Tournament being over, the Club once more creeps into oblivion for the summer, though, needless to say, many pairs of eyes are on the look-out for talent among would-be pugilists.

The results of the Inter-Hospitals Competition are as follows:

Fly-weight (Final): L. Griffiths (Thomas's) beat S. P. Mullick.
Bantams (Semi-final): E. W. Rees (Thomas's) beat L. D. B. Frost.
Feathers (Final): M. Blaker (Charing Cross) beat B. F. Jackson.
Light (Semi-final): E. C. Mayer (London) beat W. H. D. Trubshaw.
Welter (Final): W. D. F. Lytle (Thomas's) beat F. G. Ward.
Light Heavy (Semi-final): A. F. Fowler (Thomas's) beat J. H. Armstrong.

Heavy (Final): D. Goddard (Thomas's) beat A. H. Hunt.

CORRESPONDENCE.

TO MUSICIANS.

To the Editor, 'St. Bartholomew's Hospital Journal.'

SIR,—There must be many students at the Hospital who learnt to play on musical instruments in their schooldays, and are now, through lack of opportunity to play, in danger of losing their skill. I heartily recommend them to join the London Junior Orchestra (Past Public and Secondary Schools Orchestra). Rehearsals are held every Friday from 6 to 8 p.m. at the Royal Academy of Music, by that inspiring and most genial conductor, Mr. Ernest Read. The next concert is on May 21st, at the Central Hall, Westminster, at 3 p.m. The rehearsals afford unrivalled opportunities for making a cheerful noise. There are over 100 players, and those who, like myself, are afraid of playing alone need have no qualms. The subscription is one guinea for the season (3 concerts), or 12s. 6d. for the half season, and no further expenses are incurred. Inquiries may be addressed to the Secretary, 40, Marlborough Hill, London, N.W. 8.

I am, Sir, etc.,
J. CHILTON.

Connaught Club, W. 2 ;
February, 1932.

THE FUNDUS OF THE HUMAN EYE.

To the Editor, 'St. Bartholomew's Hospital Journal.'

SIR,—In the review of Mr. Ernest Clarke's book *The Fundus of the Human Eye* in the March number, p. 121, your reviewer has fallen into error in attributing to me the selection of the drawings and the writing of the descriptive legends. Mr. Clarke was good enough to ask me to look through the drawings and legends, which I did, but the work is Mr. Ernest Clarke's, and not mine.

I am, Sir, etc.,
A. H. LEVY.
London, W. 1 ;
March, 1932.

REVIEWS.

DISEASES OF THE KIDNEY. By W. GIRLING BALL, F.R.C.S., and GEOFFREY EVANS, M.D., F.R.C.P. (London : J. & A. Churchill, 1932.) Pp. viii + 424. 8 coloured plates, 159 illustrations. Price 36s.

A book by Bart's men is always interesting to Bart's men, and one by two active members of the Senior Staff carries with it an added interest. We look in it for the present views held by those who have been, or still are, our teachers. The views of physician and surgeon, combined within one cover, form a rarity, and it is not at first obvious that the kidney is the organ which is going to lend itself readily to this combination. The book is clearly divided into various sections, and it is probably most satisfactory to review these in order.

The anatomy is described, as it must needs be, accurately ; the physiology is dealt with shortly, but serves adequately to revive past memories, and as a review of present work, whilst the plentiful references are useful to those who would go farther afield.

The next two sections deal with the symptomatology and investigation of a urinary case, and it is here that we are on medico-surgical ground. The chemical tests might be described more fully. It would have been a happy thought to have included illustrations of crystalline deposits, since, although these may be pleomorphic, there are few good illustrations of them available for reference. Cystoscopic examination and urography by both the distension and excretion methods are dealt with in excellent detail. The relative uses of the two methods are clearly indicated, and the correct interpretation of their results is assisted by skiagrams, which are, for the most part, good.

Congenital and traumatic lesions are dealt with shortly. It seems a pity that falls from aeroplanes on to church steeples should be omitted as a cause of punctured wounds of the kidney ! Hydro-nephrosis, a long and difficult subject, is described in a non-controversial manner and without undue length.

Bright's disease is the heading of the next section, and is a satisfactory term, to embrace both nephritis and the non-inflammatory medical disorders of the kidney. The classification employed,

though not so simple as Van Slyke's, seems workable both from a pathological and clinical standpoint, and is infinitely preferable to that of Russell. Methods of treatment are clearly indicated. Therapeutics is well dealt with, although as these conditions are all progressive, treatment consists rather in the alleviation of the patient's symptoms than in the treatment of the disease process.

The conditions which may be termed "surgical infections of the kidney" are evenly classified and described, the most space being given to pyelitis and tuberculosis. The hæmatogenous origin of pyelitis and its almost invariable association with disorders of the other portion of the urinary tract or of the bowel are emphasized : a diagnosis of pyelitis by itself is incomplete, although simple to make. The various investigations for arriving at the correct state of affairs are described ; if these investigations, as they often do, prove negative, then the line of treatment of the pyelitis, whether acute or chronic, is given. Tuberculosis of the kidney is dealt with on the fullest possible lines. The description, like the disease itself, is not confined to the kidney ; the lesions of the lower urinary tract are described, and those found in the bladder are well illustrated by cystoscopic pictures. The value of persistence in the search for tubercle bacilli is emphasized. Two methods of examination for the organism are described, the first mentioned being probably the better. The section on treatment is very practical, and the debatable facts and indication for lines of treatment are fairly discussed. The long-continuing increased frequency of micturition and irritability of the bladder are explained, and the need for perseverance on the part of the patient and careful supervision by the doctor are stressed. General treatment of the disease must not be forgotten, and it is in infections of the urinary tract that tuberculin injection appears to be of some benefit.

The chapter on renal calculi is the best in the book. The formation of a stone in the kidney is described from the first crystal, and the possible causes of the deposition of the crystal and its subsequent fate are easy to follow. Diet and vitamin deficiencies are not allowed to escape from the ætiology, but climate, in spite of the prevalence of calculi in India and Egypt, is not regarded as a convincing factor. Radiography is essential to the diagnosis, and the importance of pyelography, is again pointed out. The operative procedures, nephrectomy, pyelolithotomy and nephrolithotomy are discussed, the various indications for each being clearly tabulated and explained. Pyelolithotomy is the operation of choice, nephrolithotomy the most old-fashioned and least indicated. The difficult problem of the patient with bilateral calculi is not avoided, and the writers' views are backed with common sense. Statistics make the chapter complete.

The microscopic view of a hypernephroma is well known ; it would have been useful to include one in this otherwise complete description of kidney tumours. The explanation, put forward by Sudeck and Stoerk of the much disputed origin of the Grawitz tumour, is adhered to and put down in simple words.

The operations on the kidney are placed in a chapter at the end ; the indications and steps are practical and easily understood. The opinions are dogmatic, as one would rightly expect from a surgeon of wide experience in this field.

The aim of the book throughout is to be practical, and great pains are taken to detail all the manœuvres described. The large number of illustrations include many very clear X-rays and coloured plates. The accompanying brief case-notes enhance the interest of the pictures, and impress them on the memory. The reference numbers given to specimens in the St. Bartholomew's Hospital Museum will prove of value to many.

The index is full and cross-references are numerous. There is the added attraction of a name index to those eponymically inclined. Throughout the book are innumerable references to original articles ; these will prove of great value to writers of theses and investigators.

Mr. Thornton Shiels is to be congratulated on his realism, and, as is usual for a book coming from the press of Messrs. Churchill, this one is a pleasure to read and to hold.

The authors had completeness as their object. This they have achieved, without damping our desire for further knowledge of the kidney.

THE GENESIS OF CANCER. By W. SAMPSON HANDLEY, M.S., F.R.C.S. (London : Kegan Paul, Trench, Trübner & Co., 1931.) Pp. xix + 258. 133 illustrations. Price 21s.

This monograph is one of the latest and most important of those published in the Anglo-French Library of Medical and Biological Science. The books are intended to bring closer together the

intellectual efforts of the medical men of the two nations, in order that each may know what the other is doing and thinking. The monographs are therefore published in English and French. The editor remarks that Mr. Sampson Handley needs no introduction to any British surgeon or pathologist. Furthermore, it is a particularly happy choice that has given him the task of writing this book.

He has a case to state, which he does very thoroughly, which can be summed up in a few words—that the histological changes found in cancerous growths if studied from their early stages show chronic lymph stasis as the original change. He states quite clearly that in his opinion lymphatic obstruction is the cause of cancer, and has painstakingly traced the pathology of lupus carcinoma through the phases of lymphangitis, papilloma and carcinoma. The first stage is a tuberculous lymphangitis.

This conception of the cause of cancer does not remove the parasitic or virus theories and the various cellular ones, which may act by some irritant disturbing the function of cell metabolism. Mr. Sampson Handley contends that his views can hold good with both these theories, inasmuch as the chronic lymphatic obstruction is there. Confirmatory results have been received by eminent workers, among whom the English surgeons and pathologists are well represented. The author's contention recurs throughout the book, and is reiterated with the persistence of the theme in a Bach fugue. Moreover, he has illustrated it by many cases and numerous specimens, which are reproduced in beautiful photomicrographs—the most notable feature of the 113 illustrations. These have undoubtedly done an enormous amount to remove the tedium which might have been met in a work of this size, which is chiefly histological. The descriptive matter is lucid and adequate. Nobody can deny from such evidence the truth of the author's research.

If this represents how cancer occurs, the question of why it occurs is left to those workers who have a valuable piece of evidence in common. Chronic irritation means chronic lymph stasis. The solution may rest with the bacteriologist, the biochemist or the embryologist.

Mr. Sampson Handley has written on a difficult subject, and presented it with an elegance of style which makes the book a model for one who seeks to compose a scientific thesis. The book deserves a wide recognition.

HANDBOOK OF SANITARY LAW. By B. BURNETT HAM, M.D., D.P.H. Eleventh edition. (London: H. K. Lewis & Co., 1932.) Pp. xxxi + 336. Price 7s. 6d.

This book appears again and, as the author states, endeavours to keep pace with the ever-increasing and amending legislation relating to public health. In spite of this enormous mass of legislative matter, the book manages to be portable, easily slipped into a pocket, well printed in clear type with rational and helpful sub-headings, copiously indexed and a mine of information. The subject is not an easy one to present so attractively, and with all respect to Dr. Burnett Ham we must admit that even with his treatment we do not find the subject-matter easy reading. It is accessible, and perhaps one of the best little books of reference on the subject that we can call to mind.

EXAMINATIONS, ETC.

University of Cambridge.

The following degrees have been conferred:

M.D.—Mellor, A. W. C.
M.B., B.Chir.—Radcliffe, W.
B.Chir.—Kersley, G. D.

University of London.

The following Diploma has been conferred:

D.P.H.—Cochrane, E.

British College of Obstetricians and Gynaecologists.

The following Member has been elevated to the Fellowship: Shaw, W.

The following has been elected a Member: Bell, A. C. H.

CHANGES OF ADDRESS.

ALLOTT, E. N., 46, Kings Avenue, Bromley, Kent.
BARNES, F. G. L., Shrubbery House, Horton, Epsom, Surrey.
LANGFORD, J. C. C., 28, Wellesley Road, Chiswick, W. 4. (Tel. Chiswick 2465.)
MARSH, F. D., 10, Church Road, Edgbaston, Birmingham. (Tel. Edgbaston 0236.)
MCGLADDERY, S., 100, Longbridge Road, Barking, Essex.

APPOINTMENTS.

BELL, A. C. H., M.B., B.S.(Lond.), F.R.C.S., M.C.O.G., appointed Obstetric Registrar, Charing Cross Hospital.
NICOL, W. D., M.B., D.P.M., appointed Lecturer in Clinical Psychiatry to the London (Royal Free Hospital) School of Medicine for Women.

BIRTHS.

FRANCE.—On March 6th, 1932, at Ludlow, Bromley Common, to Eileen, wife of Francis France, M.B.—a daughter.
HARKNESS.—On March 7th, 1932, at 20, Devonshire Place, W. 1, to Sheila, wife of R. C. Harkness, F.R.C.S.—a daughter.
HARRISON.—On February 29th, 1932, at Beckenham, to Dr. Mirabel Grace, wife of Dr. W. R. E. Harrison—a son.
HUBBLE.—On February 24th, 1932, to Joan, wife of Douglas Hubble, M.B., of 105, Kedleston Road, Derby—a daughter.
ORCHARD.—On March 21st, 1932, at 12A, Kensington Court Place, W. 8, to Sheila (née Whitaker), wife of Dr. Stuart Orchard—a son.
TOOTH.—On March 6th, 1932, at Clare House, Lewes, to Betty (née Storrs), wife of Ronald S. Tooth, M.A., M.R.C.S., L.R.C.P.—a son.

GOLDEN WEDDING.

HELME—LEES.—On March 15th, 1882, at Wesley Chapel, Hill Top, by Rev. W. George, James Milner Helme, M.D., The Firs, Rusholme, Manchester, second son of James Helme, Lancaster, to Lydia, younger daughter of the late John Lees, Beacon View, Hill Top, West Bromwich.

DEATHS.

GIBSON.—On March 7th, 1932, at Eastbourne, Thomas Sidney Gibson, M.R.C.S., L.R.C.P., D.P.H., of "Old Basing," Gerrard's Cross, aged 48.
HEBBLETHWAITE.—On March 18th, 1932, at Sevenarches, Lansdown Parade, Cheltenham, S. Montague Hebblethwaite, M.D., M.R.C.P., youngest son of the late J. W. Hebblethwaite.
MORGAN.—On March 2nd, 1932, Leslie Stuart Morgan, M.R.C.S., L.R.C.P., only son of Mr. and Mrs. F. Stuart Morgan, "Greyholme," Henley-on-Thames, aged 35.
SMITH.—On March 17th, 1932, suddenly, in London, William Robert Smith, Colonel R.A.M.C. (ret.), Knight Bachelor, M.D., D.Sc., LL.D., F.R.S.(Ed.), Barrister-at-Law, Emeritus Professor of Forensic Medicine in the University of London, aged 82.
STYAN.—On March 13th, 1932, at Lyndhurst, Sevenoaks, Thomas George Styan, M.D.(Cantab.), Officer of the Order of St. John of Jerusalem, aged 75 years.

ACKNOWLEDGMENTS.

The General Practitioner of Australasia—L'Écho Médical du Nord—Bulletins et Mémoires de la Société de Médecine—Giornale della Reale Società Italiana d'Igiene—Nursing Times—British Journal of Nursing—Cambridge University Medical Society Magazine—The Queen's Medical Magazine—The Kenya and East African Medical Journal—The Quarterly Journal of the Research Defence Society—King's College Hospital Gazette—St. Mary's Hospital Gazette—Guy's Hospital Gazette—The Clinical Journal—The Middlesex Hospital Journal.

NOTICE.

All Communications, Articles, Letters, Notices, or Books for review should be forwarded, accompanied by the name of the sender, to the Editor, ST. BARTHOLOMEW'S HOSPITAL JOURNAL, St. Bartholomew's Hospital, E.C. 1.

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All Communications, financial or otherwise, relative to Advertisements ONLY should be addressed to ADVERTISEMENT MANAGER, The Journal Office, St. Bartholomew's Hospital, E.C. 1. Telephone: National 4444.